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An analysis of housing problems in Liberia. The Republic of Liberia is experiencing a rate of population growth of about three percent annually, and a growth rate of eight to ten percent in its urban population. This has caused a critical shortage of urban housing and is straining the government's ability to provide urban services, particularly in the capital city of Monrovia. While the government's statement of its 1976-1980 Development Plan recognizes the problem and contains suitable priorities, this current evaluation shows that the gap between government policy objectives and actual performance is widening. There are many reasons for this: lack of available land in suitable locations; inflation in building costs; shortages of skilled workmen and supervisors in the construction industry; rising costs of utilities; the lack of a master plan for land use. There are also governmental obstacles: lack of a clear definition of the roles of public agencies and ministries; insufficient coordination among these agencies; and administrative inefficiency. These problems have been most serious within the National Housing Authority. To date the agency has concentrated on development of housing for middle and upper-income groups, rather than for the low-income population identified by the National Development Plan as most in need of government-sponsored housing. However, the NHA has begun to shift its attention to the needs of low-income groups. The advice of the UN Development Program team in 1974 remains valid--that squatter settlements should not be removed until replacement housing is available. This report contains seven recommendations:

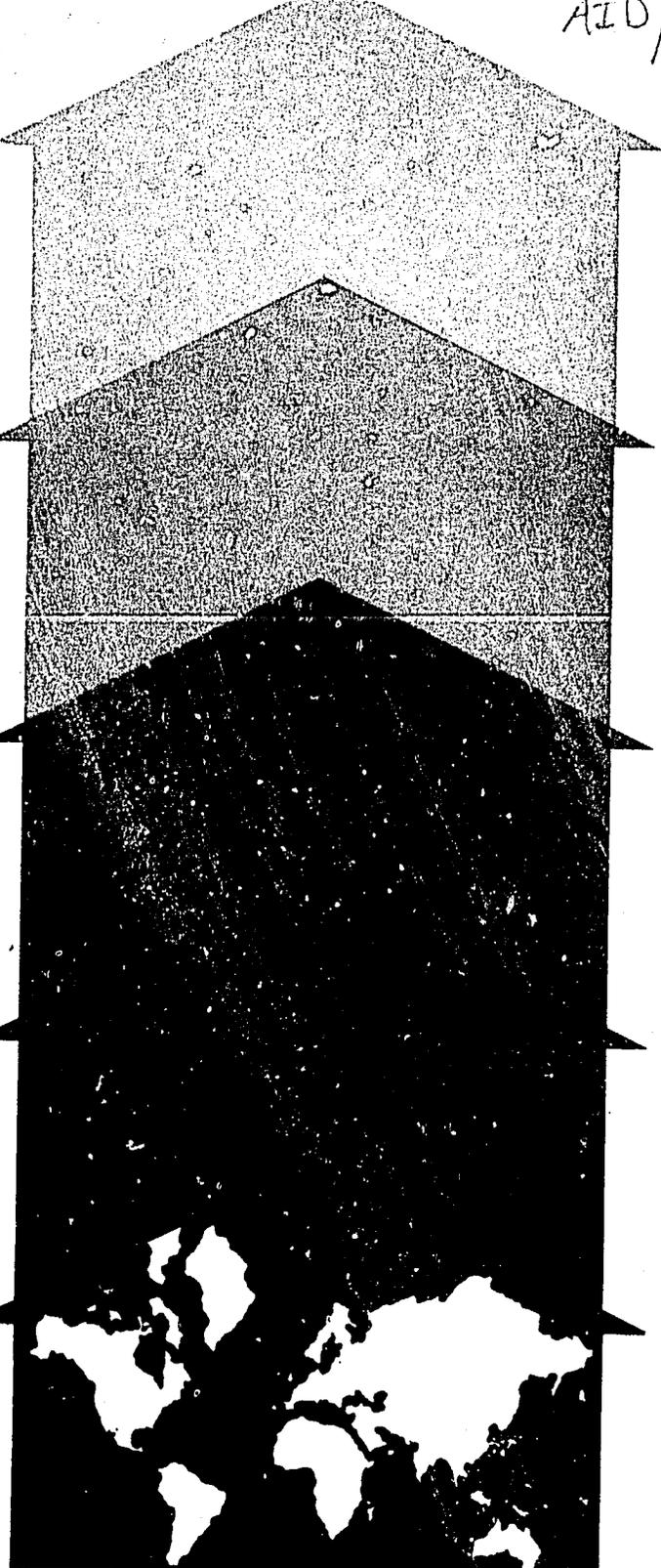
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**(1) That the government's National Housing Authority redirect its efforts toward development of housing and community facilities for low-income households; (2) That the government investigate ways to accumulate and hold large acreages of land before the need to develop housing arises; (3) That the government increase its efforts to develop minimum-shelter programs that make use of self-help techniques; (4) That squatter settlements be upgraded rather than removed; (5) That one agency be designated to collect data and analyze costs of designs, materials, and construction, with a corollary effort in research and development of construction techniques; and (6) That the NHA should work closely with the Ministry of Public Works to ensure that new NHA housing projects conform to the proposed master land use plan for Monrovia; and (7) That the government should review the roles and responsibilities of the various ministries involved in housing and urban development, to eliminate areas of overlapping jurisdiction and foster cooperation.**

**AGENCY FOR INTERNATIONAL DEVELOPMENT**



**OFFICE OF HOUSING**

AID/OIR-C-1400 GIS  
Phoenix Housing Dev.  
Corp.  
PN-AAD-067

**REPUBLIC of  
LIBERIA,  
SHELTER  
SECTOR  
ANALYSIS**

**January 24, 1977**

## FOREWORD

This study was conducted by Phoenix Housing Corporation under the auspices of the Office of Housing of the Agency for International Development and through financing provided by this Office. The purpose of the study was to develop information and make recommendations relating to the shelter sector in Liberia and was in response to a request from the Government of Liberia.

The study team was headed by Harrison G. Wehner, Jr. with other team members being Felix R.R. Drury, Roy Littlejohn and Daniel S. Coleman. Field work was completed in October 1976.

While the findings and recommendations of the report have been discussed with representatives of the Government of Liberia, the report is not to be interpreted as an official position of either the Government or of the Agency for International Development.

We hope, however, that the Government of Liberia will find the report and its recommendations useful to it as it formulates and implements its future shelter programs.

A handwritten signature in black ink, appearing to read "Peter Kimm". The signature is fluid and cursive, with a large initial "P" and a long, sweeping underline.

Peter M. Kimm  
Director  
Office of Housing

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## I. Summary of Report and Recommendations

The Republic of Liberia is experiencing a high rate of population growth -- about 3% annually -- and an even more dramatic rate of growth, now about 8% to 10% a year, in its urban population. This has caused a critical shortage of urban housing and has put enormous pressure on the Government's ability to provide urban services, especially in the capital city of Monrovia.

The Government of Liberia recognizes the nature and magnitude of the housing problem and, in its statement of housing policy in the 1976-80 Development Plan, assigns what we consider are priorities necessary to the solution. In our evaluation of the situation, however, the mission found that the gap between Government policy objectives and actual performance is widening.

There are many reasons for the gap between policy and performance. Some are specific problems within the housing sector, such as the lack of available land in suitable locations. Other sectoral problems include inflation in building costs (roughly 50% over the past two years), a shortage of skilled workmen and supervisors in the construction industry, and rising costs of utilities as public utilities reach capacity and users must spend a larger portion of their limited housing budgets for service. The lack of a master plan for land use and infrastructure for Monrovia, which would coordinate individual project development with overall urban growth strategy, is another important impediment to implementation of national housing policy.

In addition, there have been governmental obstacles to the realization of housing objectives.. These include a lack of clear definition of the roles of public agencies and ministries responsible for housing and urban development, insufficient coordination among these agencies, and administrative inefficiency. These problems have been most serious within the National Housing Authority (NHA), the agency with primary responsibility for carrying out the Government's housing and urban development mandate. To date, the NHA has concentrated on the development of housing for middle and upper-income groups rather than for the low-income population identified by the Government's National Development Plan as

most in need of Government-sponsored housing. However, the NHA has begun to shift its attention to the job of housing lower-income urban residents.

There is clearly a great need for improved housing in Monrovia, especially among the lower-income residents, who have already demonstrated considerable ingenuity and creativity in finding solutions to their housing needs. There appear to be the need and capability for developing minimum-cost local building materials and employment and for developing appropriate designs for the low-income market.

Our review of existing low-income communities in Monrovia indicates that areas such as West Point, Slipway, Buzzi-Quarters and Sonewein have a strong social fabric and contribute significantly to the local economy. However, these areas lack many social services as well as sanitary facilities and could benefit from the substantial investment of public funds. Upgrading of the squatter settlements as a means to improve living conditions is preferable to relocation, which is a difficult task and one in which past government performance has been less than satisfactory. The advice of the United Nations Development Programme team in 1974 against the removal of squatter settlements, since demolition of housing without replacement simply causes a new settlement to appear elsewhere, remains valid today. Not only will new settlements arise, but they will develop without the intricate support systems of the old communities and will probably develop on land that is even less suitable from an engineering and health standpoint than the areas cleared.

Recommendation #1

In keeping with Government policy, the National Housing Authority should redirect its efforts toward the development of housing and community facilities for the low-income households which constitute the vast majority of the urban population. In addition, the NHA should improve its ability to administer and supervise programs, as well as to negotiate contracts, supervise construction, and maintain and manage its housing projects.

To help the Government refine its housing policy, the NHA should undertake additional efforts to articulate the housing need. Toward this end, the NHA should develop a strong socio-economic research section, whose function

will be to supply other units of the NHA with information needed to design, finance and manage housing, as well as to exchange and develop data with other governmental agencies, particularly the Ministry of Planning. The NHA will need additional personnel skilled in the socio-economic aspects of housing and community development, not only to gather and analyze data themselves, but also to supervise the work of consultants brought in for specific tasks. The socio-economic section must develop the capacity to advise the Government on national housing policy.

Recommendation #2

The Government of Liberia should investigate ways to accumulate and hold large acreages of land before the need to develop housing arises. Prior acquisition would help lower costs and eliminate the delays which usually occur in locating large housing projects.

Recommendation #3

The Government should increase its efforts to develop minimum-shelter programs, such as sites and services projects and core housing, which make use of self-help techniques. Home improvement programs using self-help, such as the pilot project sponsored by the National Housing and Savings Bank in West Point, should be expanded to the greatest extent possible.

Recommendation #4

It is important that squatter settlements be upgraded rather than removed. Buzzi-Quarters may have greater value as an adjunct to the government center, but conversion to this use should not take place until there is provision for the relocation of this whole community near the employment sources of its residents. Even in areas like Slipway and West Point, where engineering problems are great, upgrading of both sites and housing should take place gradually, using some form of roll-over development whereby a small area is cleared and the site upgraded and housing replaced before the next area is cleared.

Whenever communities become overcrowded and squalor sets in, it is tempting to eliminate the problem by removing the community. In Monrovia this would be a great loss to the city. Instead, the NHA, the Ministries of Public Works and Local Government, the Mayor, and the Water, Sewerage and Electricity Authorities, should focus their attention and coordinate their activities to upgrade the major low-income communities. Unilateral agency

action, such as that of the Ministry of Action for Development in West Point, tends to undercut the strength of these communities by failing to encourage and employ the residents themselves.

The Government should develop a program to upgrade the six major low-income areas in Monrovia and to improve the delivery of services to the residents who remain, as well as those who are displaced. Key elements of the plan must be:

- A public information and education campaign integrated with the existing community organization and leadership structures.
- A limited construction or area improvement program on vacant land that can be supported by existing organizations and leadership in the community.
- A demolition and clearance program that will reduce population density, thus creating open space and access without disrupting the sense of community. Such demolition should occur only after new housing has been built to accommodate displaced families.
- A realistic relocation plan for each household to be dislocated.

Recommendation #5

In conjunction with the data-gathering and analysis activity recommended for the NHA, the object of which should be an accurate determination of the needs of the target population, one agency should be designated to collect data and analyze construction costs, materials, and designs. This is critical because the lack of reliable data is one of the chief obstacles to the development of low-cost housing solutions. There should be a corollary effort in research and development of construction techniques, materials and designs. The object of both programs should be the reduction of construction costs and the development of labor-intensive and self-help construction techniques. Based on a comprehensive study of the need for construction skills, new training facilities should be set up and opportunities for on-the-job training increased in order to expand the pool of skilled construction labor.

Recommendation #6

Since the World Bank, as part of its third Urban Transport loan to the Government of Liberia, is financing preliminary research leading to the development of a master land use plan for Monrovia, the NHA should work closely

with the executing agency (the Ministry of Public Works) to ensure that new NHA housing projects conform to the proposed plan, and that the NHA be a party to any proposed plan.

Recommendation #7

The Government of Liberia should review the roles and responsibilities of the various ministries involved in housing and urban development. Based on this review, the Government should take steps to eliminate areas of overlapping jurisdiction and to foster coordination and cooperation. In addition, the Government of Liberia should consider carefully the role that the Government of Monrovia will play in the development process. By clearly articulating duties and responsibilities, perhaps another avenue to the solution of housing problems will be opened.

## II. Country Background

The Republic of Liberia is located on the west coast of Africa some 500 miles north of the equator. It covers an area of about 40,000 square miles (about the size of Ohio) and is divided geographically into a low-lying coastal belt, an extensive plateau and a small mountainous region in the north. The average annual precipitation along the coast is 175 inches.

The population of Liberia is estimated at 1.5 million and is growing at an annual rate of approximately 3%. The crude birth and death rates are 45 and 15 per thousand, respectively. The infant mortality rate is 160 per thousand. Substantial migration from rural to urban areas is occurring, giving rise to an urban population growth rate of 8 - 10% per year. Monrovia, the capital of Liberia, with a current population of 204,000 is the country's largest urban area.

Liberia was founded in 1821 by the American Colonization Society. It became an independent republic in 1847. Modern economic development began in the 1920's, when the Firestone Company established a major rubber plantation near Monrovia. The economy was further stimulated by the world shortage of rubber during World War II and by the country's strategic location; which permitted it to serve as a transshipment and supply center for the war effort. In more recent years, exploitation of Liberia's rich iron ore deposits has attracted additional investment from abroad.

Gross domestic product (GDP) in real terms increased by 5.7% annually between 1964 and 1974. During this period new iron ore mines were opened and an iron ore pelletizing facility built. Diamond mining activity also expanded. An oil refinery was built in Monrovia. Exploitation of the country's tropical fruit was begun.

The rate of economic growth, however, began to decline in the early 1970's. Average annual growth of the GDP for the period 1971-75 was only 3.1% in real terms. The principal cause of the slowdown was the levelling off in mining and in other concessions granted to foreign firms by the Government. The worldwide recession caused further slackening of the Liberian economy in 1975.

Real per capita GDP is higher in Liberia than in most other West African countries. It has grown by about 2.4% annually since the mid-1960's to an estimated \$300 in 1974.

### III. The Role of Government in Housing

The National Socio-Economic Development Plan for 1976-80 issued in March 1976 contains the most recent statement of Government housing policy in Liberia. Authorized in April 1975 by the interministerial National Planning Council, the Development Plan was prepared by the Ministry of Planning and Economic Affairs with the Council's guidance.

Government housing policy and programs continue to focus primarily on the capital city of Monrovia, the country's single most important urban settlement and the area with the most pressing housing problems. The city's population has increased at an annual rate of about 8% from nearly 81,000 in 1962 to 204,000 in 1974, a rate of growth nearly three times that of the national population. In-migration stimulated in part by the expectation of better economic opportunities in the capital city accounts for nearly two-thirds of the increase in Monrovia's population during this period. Our mission, in accordance with the national Government's emphasis on Monrovia, concentrated on a shelter sector analysis of that city, and that is the subject of our report. However, it should be noted here that there are secondary cities and towns in Liberia, of which Buchanan (population 25,000) is the largest. Located on the coast southwest of Monrovia, Buchanan is the principal transportation hub for the export of iron ore brought by rail from mines in the mountains. Other coastal and interior towns with populations ranging from 6,000 to 14,000 include Greenville, Harper, Yekepa, Bongtown, and Bomi Hills. The rate of growth of all these areas has depended upon their role in the production and export of iron ore. None has grown as quickly as Monrovia, and none has been the site of a Government housing project.

National housing policy, as enunciated in the National Socio-Economic Development Plan for 1976-80, is based upon projections of continuing rapid growth in Monrovia's population for the foreseeable future. In the Government's view, both push factors (for example, limited employment opportunities in rural areas) and pull factors (for example, the expectation of greater earnings in Monrovia) have led to the high rate of migration from rural to urban areas. While an expanded rural development program, designed to improve

the quality of life in rural areas and secondary towns, may help slow the influx of rural population into Monrovia, the Government does not expect that the benefits, in terms of reduced population pressure in the capital, will be felt for some time. Consequently, housing policies for the immediate future must accommodate these population shifts.

The starting point of the national housing plan is an overall assessment of urban needs followed by development of a master physical development plan for Monrovia. Recognizing that proper siting of low-income housing requires consideration of employment opportunities and decisions about the nature and operation of the public transport system, the plan calls for an integrated urban development study for Monrovia to aid in planning the city's long-term, orderly development.

In an effort to deal with immediate problems, the Government proposes to streamline existing urban development machinery. At present, the responsibility for urban development is divided among several ministries (see Chapter VI, Section C below). Foremost among these are the Ministry of Local Government, Rural Development and Urban Reconstruction; the Ministry of Public Works; and the Ministry of Commerce, Industry and Transportation. Existing statutes and administrative procedures tend to hamper the implementation of urban development policies, while lack of technical expertise has prevented the development of Government agencies such as the National Housing Authority into effective institutions. The Government therefore proposes to review all urban planning activities with the goal of reducing institutional weaknesses and increasing coordination among the offices of the Government responsible for urban development.

The Government recognizes that a sound land use policy is crucial to an effective urban development program. Most of the land suitable for development in Monrovia is privately owned. The Government has been reluctant to exercise its right of eminent domain to acquire such land, as recent legal opinions have indicated that the acquisition of property in this manner is impracticable. A further problem is the identification of the legal owners of urban parcels, which is time-consuming and often impossible, due to the inadequate system of property registration. To overcome these obstacles, the Government has embarked on a cadastral survey to determine ownership of

property in Monrovia. It has also tried to secure land for development purposes by offering private owners the opportunity to participate with the Government in the benefits from commercial development. In addition, the Government is considering land taxation measures which will raise the carrying cost of unused land, thus discouraging the holding of land for purposes of speculation.

Finally, the Government proposes to secure the use of urban land from private owners by using its power of eminent domain in a manner acceptable under existing Liberian law. Under one such proposal, the Government would acquire land for social purposes, such as low-cost housing, and would itself retain ownership, while plot-holders leased the land on a long-term basis. In this way it may be possible to overcome present legal opinions, which prohibit the exercise of eminent domain by the Government where the ultimate purpose is the transfer of ownership from one private party to another.

Development of national housing policy has taken place against the background of increasing population pressure on Monrovia and the resulting deterioration in many cases of living conditions. The scarcity of land suitable for large-scale building purposes has forced newcomers to the city into increasingly crowded living patterns; it has also greatly increased the price of land. The expectation of rising prices has encouraged speculation. In addition, materials and labor costs in the construction industry have increased markedly in recent years, partly because of worldwide inflation which has affected the price of imported building materials, partly because of the scarcity of skilled labor in Liberia. Finally, long-term financing for housing construction has been available only for upper-income housing. Until now, most construction in Monrovia has been on a "cash and carry" basis, whereby households build in stages over a 10 to 25 year period, or has been financed privately.

As a result, lower-income groups have tended to settle in squatter communities or in existing marginal communities with estimated population growth rates of some 20% annually. Generally, residents build their own shelter, using impermanent, makeshift materials. The number of substandard <sup>1/</sup> housing

<sup>1/</sup> The Government of Liberia has not clearly defined substandard housing in quantitative terms. Generally, substandard housing in urban areas is considered to be a unit deficient in one or more of the basic utilities (potable water, sanitary waste facilities, and electricity) and/or constructed of non-permanent materials.

units in Monrovia by 1974, according to census data, was on the order of 15,000-21,000; an additional 2,700-3,700 units are needed annually to accommodate newcomers to the capital.<sup>2/</sup>

During the past decade, the Government has attempted to come to grips with the housing problem, and there are signs that steps are now being taken to improve the quality of shelter in Monrovia. Beginning in 1964, the United Nations prepared a series of studies examining the problem and suggesting solutions. The result of these efforts was a major UNDP housing project in the early 1970's, which was designed to assist the Government in establishing a National Housing Authority, to develop an efficient local building materials industry, and to establish a national housing finance institution. The U.S. Government encouraged this housing effort through a housing guaranty program built upon the institutional framework prepared by the U.N. experts.

The institutional results of these various efforts were the National Housing Authority (NHA), an autonomous Government Agency created in 1970 and charged with planning, regulating and sponsoring housing development on behalf of the Government, and the National Housing and Savings Bank (NHSB), authorized in 1972. The purpose of the NHSB is to mobilize domestic savings and to attract foreign capital, principally to finance the development of housing. The Ministry of Local Government, Rural Development and Urban Reconstruction has also become involved in the urban development process through its program to stem rural migration into Monrovia and also through the activities of its Town and Country Planning Division, which has undertaken long-range planning for Monrovia as well as secondary urban centers.

Despite the formation of these institutions, real progress in creating a workable housing delivery system has not met expectations. To date, the NHA has built fewer than 200 housing units, most of them for middle and higher-income households; and the Government has called in an expatriate firm at considerable expense to build additional units on a "turnkey" basis. There has been an unusually large turnover of staff at the NHA, and the tasks and responsibilities of the organization are still not well defined. For example, there has been a continuing argument over allocation of functions, particularly

<sup>2/</sup> See Chapter IV, Section B, The Demand for Housing.

with regard to financial matters, between the NHA and the NHSB. The decision of the UNDP in 1974 to discontinue technical assistance to the NHA on account of differences over policy reduced the effectiveness of that institution. To date, Government housing policy and the principal housing agency, the National Housing Authority, have fallen well short of their goals to institute minimum building standards, to implement land-use planning in Monrovia, to assemble land for housing projects, and to develop low-cost housing of a type within the financial reach of the urban majority.

For many reasons, the National Housing and Savings Bank has also been unable to fulfill the expectations of the early 1970's. Though officially established in 1972, the NHSB did not open its doors for business until 1976. In recent months, it has had considerable success in generating savings account deposits, but as yet it has had little impact on the total housing sector. Given the limited number of investment quality housing projects -- at any income level -- it will be difficult for the NHSB under current conditions to expand its interim or long-term financing of housing construction, except in the area of financing the completion of partially finished existing structures. The NHSB is well-managed and is aggressively pursuing all mortgage and construction financing opportunities in the housing sector, especially for middle and lower-income households.

There has been little coordination to date of the work of the NHA and the NHSB with that of the Ministry of Local Government, Rural Development and Urban Reconstruction, despite the fact that the Minister of Local Government sits as Chairman of the Board of the NHA. The Ministry's role so far has been limited largely to planning for new town development outside Monrovia.

Details on the policies and programs of the public institutions participating directly in the housing sector are given below in Chapter VI.

Reassessing its housing policy in the light of continuing urbanization, the Government of Liberia now recognizes that the present emphasis on publicly-financed conventional two and three-bedroom units does not meet the housing needs of the overwhelming majority of Monrovia's population. It recognizes further that the housing and urban improvement needs are greatest among households with monthly incomes of less than \$300; a group which comprises some

90% of all households in the capital. The Government is therefore concerned with development of low-cost housing solutions, specifically core housing and sites-and-services lots. Accordingly, the NHA has begun to turn its attention to this task. Over a longer period, the Government also proposes to improve existing squatter settlements by providing sanitary facilities and the opportunity for minimum upgrading of existing structures through building loans to households and organized self-help programs.

According to the National Socio-Economic Development Plan for 1976-80, the Government's financial commitment to housing programs for the 1977-80 period is \$9.8 million. This budget should permit construction of some 3,200 units. The size of the conventional housing component of the program (\$8.3 million) may be curtailed after 1977 by lack of finance. At present, a supplier's credit from abroad is financing some 600 units of conventional housing being built under NHA supervision.

The core housing component of the program (\$1.5 million) is intended to provide housing for the \$125-299 monthly income group. The NHA is now drawing up plans for a detailed program in the hope that by 1978 a pilot project may be started with financing made available by the U.S. Agency for International Development or the World Bank Group.

IV. The Housing Need

A. Housing Patterns and Existing Conditions

According to the census of population and housing conducted in 1974 by the Ministry of Planning and Economic Affairs, the median household income in Monrovia was an estimated \$77; nearly 70% of all households at that time had a monthly income of less than \$100. This survey, which enumerated 8,110 households (every fifth household) in urban Monrovia, indicates that the vast majority of the urban population lives in sub-standard housing and overcrowded living conditions. Only a small number of these households can afford standard housing made of permanent materials. Table 1 shows the distribution of households by monthly income levels of households for 1974.

Table 1 - DISTRIBUTION OF HOUSEHOLDS BY MONTHLY HOUSEHOLD INCOME, 1974

Monthly Household Income <sup>1/</sup>	Number of Households	Percentage
All households.....	8110	100
Under \$50.....	3022	37
\$ 50 - \$ 99.....	2599	32
\$100 - \$149.....	988	12
\$150 - \$299.....	834	11
\$300 and over.....	667	9

Source: Ministry of Planning and Economic Affairs, preliminary census data

<sup>1/</sup>The household survey provided income data in quantum of \$50 monthly; a more detailed breakdown is not available.

Table 2 - DISTRIBUTION OF HOUSING UNITS BY TYPE OF TENURE, 1974

Tenure of Housing Units	Number of Units	Percent
All Units.....	8110	100
Units Owned or Being Bought.....	3100	38
Units Rented for Cash.....	4030	50
Units Rented Free or Other arrangement.....	980	12

Source: Ministry of Planning and Economic Affairs, preliminary census data

Table 2 gives the distribution of housing units by type of tenure. Home ownership (about 38%) is skewed to higher-income groups, with about 62% of households renting their shelter. The median monthly rental, as shown in Table 3, is slightly over \$5. Because of survey procedures, rental figures include a large number of households who either rent only land or who pay no rent at all, hence the low level of rent as a percentage of family income.

Table 3 - DISTRIBUTION OF HOUSEHOLDS BY MONTHLY RENT PAID 1974

Monthly Rent Paid for Household	Percent
All Households	100
Under \$ 5,.....	49
\$ 5 to \$ 9.....	13
\$ 10 to \$ 14.....	13
\$ 15 to \$ 19.....	8
\$ 20 to \$ 49.....	4
\$ 50 to \$ 99.....	5
\$100 and over	

Source: Ministry of Planning and Economic Affairs, preliminary census data

According to the census data, 60% of all housing units in Monrovia are built of temporary or semi-permanent materials. The balance are built of permanent materials and are conventional in design. Among the temporary construction materials used for outer walls are galvanized iron sheets, bamboo, reed, grass, and mud. Table 4 gives a breakdown of the relative importance of these building materials.

Table 4 - DISTRIBUTION OF OCCUPIED HOUSING UNITS BY CONSTRUCTION MATERIALS OF OUTER WALLS: 1974

Construction Materials of Outer Walls	Percent
All Units.....	100
Housing units with stone, concrete or cement block....	44
Housing units with wood boards.....	9
Housing units with mud and mat.....	16
Housing units with reed, bamboo, grass .....	2
Housing units with galvanized iron.....	26
Housing units with other materials N.E.C.....	2

Source: Ministry of Planning and Economic Affairs, preliminary census data

The data also indicate (see Table 5) that 34% of all housing units in Monrovia are without utilities (water, sewer, electricity). Only 25% of all houses had water, electricity, and flush toilet.

Table 5 - DISTRIBUTION OF HOUSEHOLDS BY TYPE OF UTILITIES 1974

Available Utilities	Percent
All Households	100
Households with no utilities	34
Households with inside piped water only	1
Households with electricity only	31
Households with inside flush toilet only	--
Households with water, electricity and flush toilet	25
Households with water and electricity only	6
Households with water and flushed toilet only	--
Households with electricity and flushed toilet only	2

Source: Ministry of Planning and Economic Affairs, preliminary census data

Finally, the data show that 65% of all households share kitchen and/or toilet facilities with other households (Table 6).

Table 6 - DISTRIBUTION OF HOUSEHOLDS BY THE SHARING OF KITCHEN AND TOILET FACILITIES WITH OTHER HOUSEHOLDS 1974

Usage of Kitchen and Toilet Facilities	Percent
All Households	100
No sharing of facilities	35
Share kitchen facility only	37
Shares toilet facility only	20
Shares both kitchen and toilet facilities	8

Source: Ministry of Planning and Economic Affairs, preliminary census data

#### B. Low-income Communities

Turning to a review of specific communities, the mission inspected West Point (Figs. 1-16), Sonewain (Figs. 18-20), Buzzi Quarters, Slipway (Fig. 17), and Newport Street, which, along with Claratown and New Kru Town, are the largest of Monrovia's low-income housing areas. These settlements have usually grown up on land with serious drainage, flooding and

and sewage disposal problems, which uncontrolled population growth and extremely high densities exacerbate. The crowding has encroached on roads and paths to an extent that makes vehicular traffic often impossible and walking difficult (Fig. 3). It is impossible for fire-fighting equipment, ambulances or delivery vehicles to penetrate many of the areas (Fig. 19). However, despite obstacles of terrain and crowding, water service has been extended into all these areas and sewage lines into several.

Looking past the crowding and, in some cases, squalor, there is evidence of a strong social fabric, industry, ingenuity and contributions to the commercial life of the city. In construction and site development the crowding and meager resources have not kept residents from adapting traditional living patterns to urban life (Figs. 10, 12), from getting the most out of available materials (Figs. 5,6,11), and from creating functioning communities in the face of severe problems (Figs. 9, 15, 19). Building materials and implements are being manufactured (Fig. 5). Small contractors and self-help builders are at work. Clans are organized around certain trades. The energies, skills and organization needed for up-grading and developing new communities are present.

The largest of the low-income areas is West Point. Prior to the building of the Free Port of Monrovia in 1948, the area from Mamba Point to the present General Market was inhabited by fishermen of the Kru tribe. The area had to be evacuated when a railway was built to transport rock needed for the construction of two breakwaters from Mamba Point. West Point at that time extended only to the old General Market, some 300 meters from the present market at waterside.

As a result of the building of the breakwaters, the outlet of the Mesurado River became smaller and sand brought in by the sea and river formed a sand bar, thereby closing the mouth of the river. The squatters collected money and filled this outlet with sand and stones, thus connecting it with the mainland.

West Point, which contains approximately 96 acres of government-owned land, is located near the heart of downtown Monrovia. It is in close proximity to two of the largest and most active markets in the city (Fig. 14)

and is accessible to vehicular and water traffic. However, water from the river is finding its way to the middle of the peninsula and the beaches are endangered by the encroachment of the ocean. The water table is so high that a few feet of digging produces water, thus affecting the depth of foundations.

The preliminary census data for 1974 did not give a separate breakdown of West Point population. According to a limited survey conducted by the Socio-economic section of the National Housing Authority in 1972, the population of West Point was approximately 20,000. This report indicated that the survey covered 378 houses with a total of 1831 rooms. The 1,356 households residing in these units were made up of 2,844 adults and 2,482 children, or a total of 5,326 persons. Describing the living arrangements in the units, the report noted:

There was more than one household in each house. The plan of the houses is more or less standard. There is a central three to four foot wide corridor, four to eight rooms, one hundred to one hundred twenty square feet in area on each side of the corridor. Each room was occupied by a household. In some cases, owners occupied one or two rooms and the rest were rented out.

The heads of household were relatively young, 53% reporting that they were under 30 years of age. Another 17% indicated that they were between 31 and 35 years of age. Less than 30% of these heads of household indicated that they were skilled workers, while about 70% categorized themselves as unskilled or semi-skilled.

In mid-1974, the median monthly income in West Point was an estimated \$37. It is estimated that the median in January 1977 is about \$45 monthly.

By almost every definition, West Point is a squatter area and a slum. Most of the structures are made of corrugated steel and have dirt floors. There is no adequate protected water or sewage disposal system in the area. In 1972, for example, only 31% of the houses surveyed had a bathroom; another 5% had a toilet only. Currently, the two public toilets built in the area are closed. As a result, residents dispose of waste in holes along passageways or on the beach, thereby increasing the health hazard.

Water is supplied to the residents through a small water line, but most of the houses do not have a protected water supply. The 1972 survey indicated that only 16% of the houses surveyed had protected water. The situation does not appear to have changed appreciably in the past 5 years.

West Point has serious health problems. Communicable diseases, because of poor sanitation and climatic conditions, pose a continuing threat. The incidence of cholera and tuberculosis is of particular concern.

One narrow road serves the area. Since there are no crossroads and delivery vehicles stop along the road to service small stores and shops in the area, and since roadside stands frequently block the road, driving from one end of the area to the other is often difficult. Following a heavy rain, the holes in the road become pools of water and parts of the road itself become a quagmire.

It is along this road that one finds the infrastructure such as schools and clinics. There is one elementary school in the area (Fig. 7), a part of the Monrovia Consolidated School System. This school, founded in 1966, has approximately 200 pupils and a staff of 6. There are a number of private institutions that supplement the efforts of the school system.

The Ministry of Health and Welfare operates a clinic in West Point. This facility is staffed by one medical doctor and six nurses; it has one bed for holding patients until transportation to the hospital in Monrovia can be arranged. There is a police station in West Point, with 54 officers assigned to it. Most police cases have involved petty larceny and juvenile delinquency; reportedly, a police officer was killed recently in the area.

While knowledge of the land and the infrastructure is essential in drawing a picture of the housing needs of the West Point area, perhaps even more important is an understanding of the people who live here. In the opinion of one sociologist, Monrovia is a conglomeration of urban villages. West Point is an excellent example of this thesis. The four largest tribes represented here are the Kru (30%), the Grebo (25%), the Fanti (20%) and the Mandingo (10%). The tribal life-styles and customs are, to an important degree, duplicated in the way people live and operate in West Point today (Figs. 9-13). In some instances there have been attempts to duplicate the

family compound, but even where households have replaced compounds the family often remains connected through relationships and relatives who live close by.

Under these circumstances the extended family takes on an increased significance. Among other things, it serves as an urbanization agent, teaching each new member how to cope with his environment. Perhaps its most significant function lies in its assumption of responsibility for the welfare of its members. This is especially important in Monrovia, since the national government has not established institutions to carry out many welfare functions.

The method of governing West Point takes into account the extensive family and tribal relationships in the area. Even though there is a Commissioner appointed by the national government, the area is administered with the assistance of the chiefs, who are elected by their tribes. There are also justices of the peace from each of the major tribes.

West Point has been the target of improvement programs. One of these was initiated in 1972, after the President of Liberia visited the area and expressed his desire to improve the living conditions of the residents (Fig. 4). Pursuant to a Presidential request, the National Housing Authority recommended improvement of the area in three phases:

First Phase: The area should be opened by providing an alternative new road to form a ring road joining the existing road for vehicular traffic. This ring should have crossroads with open areas where public latrines should be built and a few tot-lots opened up for playgrounds for young children.

Second Phase: Even after opening up a new road and provision of tot-lots, the built-up area will remain congested with several dilapidated structures mixed with good houses. The dilapidated structures should be marked and removed. Nearly 50% of the structures are in poor condition and their removal will open up the area, thereby easing the overcrowding to a great extent.

Third Phase: The existing good structures should be improved by providing windows for better ventilation where necessary, kitchens, bathrooms, toilets, good roofs, floors, etc.

The plan also called for the relocation of displaced families to "newly

acquired land near West Point" where the government would provide utilities. NHA was to provide building materials and to give technical assistance in what was conceived as essentially an aided self-help program. The upgrading project ended in failure for a number of reasons. From conception to execution, the project was improvised; funds to carry out the plan were never made available; no effective community awareness or education campaign to inform the residents and involve them in the project was ever put into effect; and the relocation program was ill-conceived, in that it unnecessarily disturbed the fabric of family and community life by moving fishermen away from their place of work. Tension in the community was heightened and there continues to be a strong feeling that the government intends to level West Point and replace it with middle and upper income housing.

The other major pockets of low-income population are Buzzi Quarters, Sonewein and Slipway. No surveys have been brought to our attention which parallel that on West Point. In addition to the general characteristics described earlier, these areas have the following specific features:

**Buzzi Quarters**

Population	16,000
Area	32 acres
Clinics	1
Schools	2 (elementary)
Public Toilets	None
Technical Services	Water and sewage system, electricity available but few houses have connections
Land Owner	Government
Public Authority	Loma Chief and Justices of the Peace
Major Tribe	Lomas

**Sonewein**

Population	10,000
Area	20 acres
Clinics	access to city clinics
Schools	access to city schools
Public Toilets	2
Technical Services	Water and sewage systems, electricity available but few houses have connections
Land Owner	1/3 African Methodist Church 2/3 Government
Public Authority	Squatters pay lease to the church
Major Tribe	Bassa Chief and Justices of the Peace Bassa

Slipway

Population	8,000
Area	21 acres
Clinics	None
Schools	1 (was taken down together with dwellings because of new bridge)
Public Toilets	1
Technical Services	Water and sewage systems, electricity available but few houses have connections
Land Owner	Government
Major Tribe	
Public Authority	Chief and Justices of the Peace

(Source of Information: NHA Socio-economic section 1976)

An NHA staff architect has made an important study of planning and housing in the low-income communities of Monrovia. His report identifies several important examples of indigenous design in West Point, namely compound housing with several houses (families) staking out and maintaining a compound (open area) for common use (Fig. 15), clan clustering around work yards for a certain trade (e.g. Fanti fishermen, Figs. 9-12), and the upgrading of houses by building a cement-block structure directly around and over a metal shack (Fig. 6). Considering the income of the residents and the lack of community services and infrastructure, the community is well developed and maintained, according to this study.

What these communities lack, however, are the larger systems on which any community depends: water supply, sewers, roads, and stable land. These systems are either inadequate or non-existent and their absence, coupled with overcrowding, causes serious problems. The beach at West Point, for example, is the community toilet (Fig. 8). In the dry season the roads and paths fill the air with dust; when it rains, they turn to mud (Fig. 20). There is one public school with six rooms and no toilet or windows for West Point's 20,000 to 25,000 people (Fig. 7). The exact dimensions of the health problems are not known, but WHO and U.S. AID doctors say the potential for epidemics is great.

The study suggests that the large low-income communities of Monrovia present an uncomfortable paradox. They are full of vitality and ingenuity and provide an immense amount of housing for the area they occupy -- housing

not available elsewhere or replaceable without a large investment of time and money. The communities contribute heavily to the commercial and social life of the city, yet they cannot continue as they are without endangering the welfare of the city as a whole.

### C. Housing Demand

The survey of households conducted by the Ministry of Planning and Economic Affairs described on page 14 above can be interpreted as representing the entire population of Monrovia. The 1976 population is estimated at 204,000 persons. At a growth rate of 8% per year, the population will reach nearly 300,000 by 1981.

Information on the number of households is sketchy. Given the extended family patterns common in Liberia, it is difficult to determine just what number constitutes a household. Comparable studies of housing patterns in other developing countries seem to indicate that the average is seven persons per household. Proceeding on this assumption, there are 29,145 households in Monrovia today while by 1981 there will be 42,700, or an average of 2,700 newly formed families annually (see Table 7). However, Ministry of Planning officials who conducted the survey maintain that it covered only one household in five. This would make the total number of households closer to 40,000 and the size of the average household fewer than five persons -- the latter an unusually low figure. Because it seems more realistic to base income and housing need on the larger number of persons per household, we have computed Table 7 assuming an average of seven persons per household.

Table 7 - INCOME DISTRIBUTION: MONROVIA

Monthly Income Range	Households (In percentage)	Number of Persons	Number of Households		Net Household Formation <sup>1/</sup>
			1976 (Based on 1974 Income Groups)	1981	
Under \$50	37.3	76,090	10,870	15,930	5,060
50 - 99	32.1	65,480	9,355	13,700	4,345
100 - 149	12.2	24,890	3,555	5,210	1,655
150 - 199	5.0	10,200	1,455	2,135	680
200 - 249	2.7	5,510	790	1,150	360
250 - 299	2.5	5,100	730	1,070	340
300 - 349	1.9	3,880	555	810	255
350 - 399	1.7	3,470	495	725	230
Over \$400	4.6	<u>9,380</u>	<u>1,340</u>	<u>1,970</u>	<u>630</u>
		204,000	29,145	42,700	13,555

<sup>1/</sup> Difference between total number of households, 1976-81

A rule of thumb in housing analysis is that the average family can afford to spend 25% of its monthly income on housing. A family earning \$50 per month in 1974 prices could afford to allocate one-quarter or \$12.50 per month for housing; or, stated another way, the lowest income group could pay no more than \$12.50 per month in rent. Assuming that a long-term mortgage loan program exists, the lowest-income family could afford to purchase a unit costing no more perhaps than \$1,125 in 1974 prices (Table 8). According to data given in Table 7, 37% or an estimated 11,000 to 16,000 households fall into this lowest-income bracket.

Table 8 - UNIT COST BASED ON ABILITY-TO-PAY FOR VARIOUS INCOME LEVELS

Monthly Income Range	Average Ability To Pay <sup>1/</sup>	Unit Cost (100% Mortgage) <sup>2/</sup>	Net Household Formations <sup>3/</sup>	Total Required Investment <sup>4/</sup>
Under \$50	\$ 12.50	\$1,125	5,060	\$4,554,000
50 - 99	18.75	1,700	4,345	5,909,200
100 - 149	31.25	2,850	1,655	3,773,400
150 - 199	43.75	3,975	680	2,162,400
200 - 249	56.25	5,100	360	1,468,800
250 - 299	68.75	6,200	340	1,686,400
300 - 349	81.25	7,375	255	1,504,500
350 - 399	93.75	8,525	230	1,568,600
Over \$400	100.00+	<u>9,075</u>	<u>630</u>	<u>4,573,800</u>
			13,555	27,201,100

Source: Phoenix Associates

<sup>1/</sup> Based on the rule of thumb that 25% of family income can be dedicated to housing purposes. It is obvious that this percentage is not rigid and families in the lowest income brackets, for whom mere subsistence is a problem, cannot afford to spend any of their earnings on housing, while higher-income families can afford to spend considerably more than 25%.

<sup>2/</sup> Unit cost, financed with 100% mortgage loan over 20 years and 12% interest rate.

<sup>3/</sup> From Table 7

<sup>4/</sup> Unit cost times number of new households formed during 1976-81 gives level of financial investment required to satisfy new households' housing need.

By January 1977, it is estimated that the median monthly income will have increased from \$77 to \$93. This estimate is based upon increases in the local consumer price index, which showed that prices had increased by 30% over the past 2½ years. It is considered that wages increased only two-thirds as much as prices. This means that a household in the lowest income bracket in 1977 would have an estimated \$15.00 per month to spend on housing, or could afford a mortgage-financed unit costing a total of \$1,350.

Table 8 also summarizes the magnitude of the required investment in housing, should the Government of Liberia desire to deal with total housing need. Housing need is defined as the total number of units required to provide adequate shelter for the entire population. This total is made up of the number of all substandard units; a percentage of the existing standard units that leave the market annually because of deterioration, obsolescence, or changes in land use; and the number of units required to house newly-formed families.

According to the survey by the Ministry of Planning (see Tables 4 and 5 above), about 60% of existing housing units are substandard. Based on the number of households, we can estimate the total number of housing units at between 25,000 and 35,000.<sup>1/</sup> This would seem to indicate that 15,000 to 21,000 units are substandard.

The second factor in determining housing need, the number of standard units leaving the market annually, can be estimated at 2% per year. Since there are only 10,000 to 14,000 standard units, a 2% replacement figure means that 200 to 280 units must be replaced in 1977, with a small increment each following year.

Over the next five years, the population of Monrovia is expected to increase by 8% per year. By 1981, therefore, there will be at least 42,700 households (calculating seven persons to a household), or as many as 58,700 (based on the Government estimate of 40,000 families in 1976). Therefore, between 13,500 and 18,700 new families will need housing, or an average of 2,700 to 3,750 families annually.

The level of financing required to satisfy today's demand for adequate housing is difficult to determine. The low-income families who occupy most of the substandard units should be in a position to repay home improvement loans of up to \$1,000. Assuming the minimum investment of \$1,000 per unit for an estimated 15,000 - 21,000 units of substandard housing, the total minimum investment required to upgrade substandard units would be \$15 -

<sup>1/</sup>Households often double up, particularly where the extended family is a prevalent cultural pattern.

\$21 million. To satisfy the housing need of the estimated 13,500 families that will be formed during the next 5 years, a total investment of \$27,200,000, or \$5,440,000 annually, is required (see Table 8 above). Replacement of the housing units which will leave the market because of deterioration adds another \$400,000 - 560,000 to the total investment required.

Table 9 summarizes the total investment required to improve housing conditions and increase the housing stock to meet the needs of the growing population. It is doubtful, however, whether Liberia's level of economic development will permit the investment of \$8 to \$10 million per year in housing.

Table 9 - TOTAL HOUSING NEED TO 1981

	No. Units	Cost/Unit	Total Cost
Current Substandard Units	15,000-21,000	\$1,000	\$15-21 Million
Replacement of Standard Units Leaving Market	200-280	\$2,000	\$400,000-600,000
Units Required to House Net Number of New Families	13,500	\$1,125- 9,075	\$27,200,000
Total Cost			\$42,600,000-48,800,000
Average Annual Cost			\$ 8,520,000- 9,760,000

Source: Phoenix Associates

## V. The Supply of Housing

### A. Organization of the Housing Delivery System

The provision of housing is a function of the private sector, both formal and informal, and the public sector. Many institutions and people are involved in providing housing; the inter-relationships of these groups comprise what is known as the housing delivery system. The efficacy of the system is one determinant of the level of housing production.

The housing delivery system can be divided into four components:

Planning and Promotion Activities

Finance

Construction Industry

Ancillary Services

#### Planning and Promotion Activities:

In its principal role as the promoter of housing development, the National Housing Authority has been responsible for the few instances of planned construction projects in Liberia. In addition, the NHA plans and designs some of its projects. The agency is responsible for site planning though not for urban planning. The NHA also relies upon the private sector for support, including site planning and housing design for some projects. For example, the NHA will use private consulting firms for some of the planning and design for its proposed projects in Matadi, Mensah et al, and Buzzi-Quarters. Private developers also purchase planning and design services from the private sector. They seldom use consultants, however, for subdividing land into lots for sale, preferring to use surveyors instead. Typically, builders put together house plans using owners' suggestions, but occasionally the homeowner will employ an architect to design his house.

#### Finance:

Traditionally, housing finance has been a function of the private informal housing sector. Some housing finance has been and still is avail-

able on a short-term basis from individuals; generally, and especially for low-income families, housing is built on a cash pay-as-you-go basis. The creation of the National Housing and Savings Bank, which provides financing for home construction, improvement and purchase, and the National Housing Authority, which finances housing projects, has provided the first institutional framework for housing finance (see Chapter VI). Commercial banks finance upper-income housing; this is the only case of involvement by the formal private sector in residential housing.

#### Construction Industry:

Private construction companies, most of them locally owned, carry out all housing construction today. In the past, the NHA has attempted to participate in construction, but its present policy is to use private contractors for all projects. Much housing is constructed without the assistance of formally organized construction firms. This applies especially to most rural housing, all low-income housing, and certainly to urban squatter settlement housing. Part B of this chapter discusses the construction industry in detail.

#### Ancillary Services:

Road building, civil engineering, drainage and city planning are the responsibility of the Ministry of Public Works. It is through this ministry that the World Bank urban transportation study will be carried out. The utility authorities are responsible for main utilities service, but developers must provide infrastructure within their developments.

Other governmental involvement in the housing delivery system is described in Chapter VI.

### B. The Construction Process

In its recent survey of the construction industry, the World Bank identified eight firms in Monrovia capable of carrying out projects up to \$1.5 million and five firms capable of projects up to \$500,000. In the opinion of the Bank's resident construction management team, these firms are competent in all kinds of work related to housing construction,

including on-site infrastructure. For its own construction projects the Bank found that Monrovia's large firms were able to underbid larger international firms by substantial amounts.

There is also an undetermined large number of smaller contractors with from one to a dozen employees engaged in small residential and commercial projects. The quality of their work is acceptable to poor, depending on the quality of supervision. The National Housing and Savings Bank has a policy of encouraging these small contractors as part of its program to finance the completion of the large number of unfinished houses in the city (see Chapter VI, Section A below). Increased activity by small contractors affords the primary means of non-formal education in the building trades and thus is the chief means of increasing the construction labor pool.

The biggest problem in construction industry is management and on-site supervision. The recent experience of both the World Bank and private firms indicates that contracting agencies must have a management component to control construction projects, especially in scheduling work, ordering imported materials, and supervising the construction of infrastructure. There are two large expatriate consulting firms in Monrovia which can manage projects of any size while, in addition, there is also a growing community of well-trained Liberian architects and engineers capable of supervising all phases of residential construction except large-scale infrastructure.

Finally, there is the large informal construction sector of self-help building, principally in the very low income areas of the city. Little is known about the assignment of responsibilities, level of skills and participation or pace of this construction, but the increasing number of houses in such areas as West Point are evidence of a functioning and potentially important informal construction industry.

Labor: Because of the major projects financed by the World Bank and fairly heavy commercial construction in Monrovia, the construction industry is operating at close to its capacity. Skilled construction labor is in short supply and supervisory personnel even more scarce. Local firms and labor will probably be unable to handle a single construction project of \$3 million or more for the next two years. A recent assessment of Liberia's manpower and vocational

training problems predicts a serious shortage of construction and supervisory labor by as early as 1978 if projections of the country's growth rate are realized. The assessment also demonstrates that formal vocational training programs are not capable of fulfilling training requirements. This underlines the importance of the NHSB's program of encouraging small contractors and thereby increasing the opportunities for on-the-job training.

Professional Services: The increasing number of capable Liberian architects and engineers will soon provide the construction industry with the planning, design and supervisory skills it badly needs. These Liberian professionals are in a far better position to respond to the housing needs here than foreign firms. For this reason the World Bank recently decided to use local architects and engineers for the second phase of its educational projects. However, in the areas of master planning, land use, zoning and certain aspects of construction management expatriate technical assistance is still desirable.

Materials: Most bulk construction materials are produced in Liberia: sand, crushed rock, cement and timber. The cement, however, is ground from imported clinker. Paint and nails are also made locally from imported materials. All other building materials and appliances are imported.

There is a large manufacturing capacity for sand-cement blocks, including widespread back-yard or cottage industry production (Fig. 5). The quality is adequate. Stabilized soil and sun-dried clay blocks can also be produced in quantity at about one-third the cost of cement blocks. Bricks are now made only at the Firestone plantation at Harbel and are not available for large-scale residential construction in Monrovia, where bricks were once fired. Bricks are a more durable building material in this climate, and there is interest in reviewing brick production (see p. 32 below). While it is not likely that bricks will figure in low and middle-income house construction because of their relatively high cost, the development of brick-making facilities could have an important indirect effect on low-income housing through the production of other clay products, especially drain tiles and pavers.

Liberia's great forest resources have the potential to supply and increasing percentage of materials needed for house construction, provided

export prices are not allowed to determine the price and availability of local timber products. The UNDP Housing Team studied this problem and identified kinds of wood and methods of use for house construction. Further research and development are needed in processing, design, and marketing of wood products for house building. Windows, doors, and door frames are locally manufactured with Liberian lumber and the windows are glazed with imported glass (Fig. 25). Because of high breakage, imported aluminum frame jalousie windows are competitive in price. Roofing is usually very thin corrugated sheets of zinc-coated steel, imported largely from Japan. Corrugated cement asbestos is also used. Roofing is supported on timber trusses on beams of local manufacture. The UNDP Housing Team guided the development of efficient and economical roof trusses (Fig. 25).

There is a flourishing private market in building materials with competitive choices for most products, except those manufactured locally and protected by government regulation, notably cement. All of the agencies which have studied the housing industry have seen the need for extensive development of locally manufactured building materials.

Construction Techniques: The standard middle-income house is built in the following way. The foundation and structural floor are poured concrete. When the owner can afford flooring it is most often resilient tile. Locally made terrazzo flooring is more expensive. The walls and partitions are cement block, often parged with mortar or stucco and painted. Windows have either wood or aluminum frames, and doors and door frames are of wood. Lintels are either pre-cast or poured in place concrete. The roof structure is wood beams or trusses with corrugated roofing (either metal or asbestos).

The low-income house may be a stripped version of the middle-income house: no flooring, wood shutters in place of windows, bare block walls, no tile, no kitchen; or it may be a timber pole frame with both walls and roof sheathed in corrugated metal.

Costs: Construction costs in Monrovia are under heavy inflationary pressure. Although there is no index of production costs, the National Housing Authority estimates the overall increase in the cost of house construction

at 50% over the last two years. In 1972 the cost of NHA-produced housing was projected at approximately \$4.00 to \$5.00 per square foot; today, the cost for the same kind of construction is \$10.00 to \$18.00 per square foot. This increase has driven the cost of NHA housing beyond the financial reach of even middle-income families.

A few examples illustrate the inflationary trend. In 1974 a cubic yard of crushed rock cost \$9.50; today, it is \$21.60. A bag of imported cement was \$1.50 in 1972; locally produced cement costs \$3.80 today. A further increase of 10 cents per bag has been set to pay the cost of doubling the Liberian Cement Co.'s capacity, but there is no indication that the added capacity will lower cement prices. The price of sand-cement blocks, the basic building material, has risen along with the price of cement.

Sharply increased costs of locally produced materials are not limited to cement but are also true of local production of both nails and paint. The cost of imported materials has risen too, but at less than half the rate of locally produced materials. The present high cost of housing may reflect some increased costs due to monopolies given to encourage local industry.

Despite increased cement costs, cement blocks remain a promising material for lower-cost housing because of the growth of block-making as a cottage industry. With this production capability available in low-income sections of Monrovia, cooperative or self-help building programs would become more realistic because of reduced labor costs and possible concessionary cement prices.

Several agencies, including the UNDP Housing Team and the Liberian Development Bank, have suggested that a brick industry be developed in Monrovia, where clay to make bricks is readily available. While this is a reasonable suggestion in terms of general construction, it is hardly applicable to low-income housing. Firestone is now making bricks at its Harbel concession at a net cost of \$80 per thousand (brick size is approximately 3" x 10" x 5") and retailing them at \$125. Using these figures the installed cost of brick masonry would be 75¢ per square foot compared with 42¢ for cement block. This would add, very roughly, 20% to the total cost of a house. Moreover, because of the cost of production equipment and fuel, brick-making cannot be carried on as a cottage industry.

Sun-dried or stabilized earth blocks are more promising as a cost-reducing material for low-income housing. The installed cost of these blocks is around \$.20 per square foot. However, these materials can be used only if the roof overhang is large enough to protect the walls from rain and surface drainage at the base is good. These factors reduce the savings from use of soil blocks to around 15% of the cost of a house.

The promise of lower construction costs through more extensive use of Liberian timber is not likely to be realized for several years. Even though Liberia has a tradition of wooden houses and the NHA has recently built an experimental wood frame house at Tolbert Estates (one of its housing projects), milling, curing, and preserving facilities are insufficient to make lumber widely available at low cost. The exportation of logs is banned as of 1980, but there is still the possibility that the export demand for sawed lumber will keep prices in Liberia high. Experts have suggested several measures to reduce lumber prices, among them promotion of the wider use of timber, expansion of lumber treating and milling facilities, and timber research in the field.

In the informal, low-income construction market there is extensive use of pole lumber which sells for 2 ½ cents per running foot. This means that the roof structure of a single family house can be built for around \$15.

The opportunity to estimate and compare construction costs and to design less expensive structural systems is severely limited by the lack of comprehensive cost data. No construction cost index is published, so that the only reliable source of construction cost information is current field experience. This means that price information often relies on hearsay. Estimates of the square foot cost of middle-income housing given this mission ranged from \$6 to \$18.75.

Some calculations of the cost of alternative housing solutions are possible, based on certain assumptions. If we assume that an acre contains 15 lots, the cost of an average lot comparable in price to those in the Matadi and Mensah project areas is \$320. Minimum infrastructure improvement for this lot would amount to about \$500, while major infrastructure improvement would add another \$400.

The NHA has identified a core house designed according to typical Western concepts which would be most appropriate for those Liberian families who have adopted Western living styles. This unit would cost about \$2,500 (the price excludes cost of the lot and infrastructure improvement). A second unit type, identified here as the Lewis Core House (Figs. 30, 31), is designed on the living patterns of the low-income families of West Point (Figs. 9-13), in particular of the Fanti tribal group. It accommodate the extended family and clan life-styles of these groups. The cost of this 650 square foot unit is estimated at \$2,110, or \$3.25 per square foot.

Table 10 demonstrates the range of solutions available for lower and middle-income families. The table does not show the cost of a possible minimum shelter solution. A 200 square foot minimum solution composed of a sanitary core plus one large room which could be expanded might cost about \$5.00 per square foot. A housing solution incorporating these concepts would therefore cost as follows:

Lot	\$ 320
Major infrastructure	\$ 900
200 sq. ft. core unit	<u>\$1000</u>
	\$2220

Table 10 - ALTERNATIVE COSTS FOR HOUSING SOLUTIONS

(as of November 1976)

Solution A (land only)	\$ 320
Solution B (land plus minimal infrastructure site improvements)	\$ 820
Solution C (land plus major infrastructure site improvements)	\$1,220
Solution D (improved lot with Lewis core house)	\$3,120
Solution E (improved lot with NHA core house)	\$3,720

Source: Phoenix Associates, based on data from NHA technicians.

Chapter IV, the Housing Need, examined the demand for housing of various income groups in relation to their ability to pay (see Tables 7 and 8). Table 11 demonstrates the alternative housing solutions open to families in different income brackets. It is clear, for example, that even the lowest-income group (less than \$50 per month) can afford solutions A and B, that is, the lot with minor infrastructural improvement. It is equally clear that the more substantial alternatives are beyond the purchasing power of all but the groups making over \$150 per month. The two least expensive shelter solutions now available, the Lewis house and the NHA core unit, are beyond the financial reach of 82% of the population.

Table 11 - INCOME LEVEL AS RELATED TO HOUSING SOLUTION

Monthly Income Range \$	Various Solutions <sup>1/</sup>				
	A	B	C	D	E
Under \$50	X	X			
\$ 50 - 99	X	X	X		
\$100 - 149	X	X	X		
\$150 - 199	X	X	X	X	X
\$200 - 249	X	X	X	X	X
\$250 - 299	X	X	X	X	X
\$300 - 349	X	X	X	X	X
\$350 - 399	X	X	X	X	X
Over \$400	X	X	X	X	X

<sup>1/</sup> Taken from Chapter V, The Supply of Housing, Table 9 page 52.

### C. Land Use

The recurrent difficulties NHA has encountered in its efforts to acquire sizeable and well-located tracts for housing project development necessitate a closer examination of land use than is usual in a shelter sector analysis.

The original town site of Monrovia is a narrow peninsula, bordered on the south and west by the Atlantic Ocean and on the north by the Mesurado River and lagoon. At its widest, the peninsula measures only one-half mile, while at the more eastern sections it narrows to some 400 yards. As the need for space to accommodate the rapidly increasing population grows, the city has developed in two directions:

- a. Along the eastern peninsula, which is served by the Tubman Boulevard, to the areas known as Congotown and Paynesville and
- b. to the north over the Bushrod Island Bridge to the island of the same name, which is itself a narrow strip some seven miles long and one mile wide.

Swamps and low lying lagoons occupy a large part of the Monrovia land area. It is estimated that some 6,500 acres of the 12,500 acres within a five mile radius of Mamba Point at the northwestern tip of Monrovia are unfit for construction purposes, unless land reclamation projects are carried out.

Housing and the various commercial and economic activities are interspersed throughout the city. Industrial activities have been attracted to the Free Port area on Bushrod Island and lately to the new Industrial Park. Another important industrial area is the Sinkor area along Tubman Boulevard. Although small industrial shops are scattered throughout the city, most commercial activity is concentrated downtown in a 20 square block area. The principal governmental ministries and agencies are located in Monrovia, most of them in the downtown area or in the new government center on Tubman Boulevard, half a mile from downtown.

While housing is scattered throughout the city, more substantial upper and middle-income housing tends to be concentrated between the Sinkor and Paynesville areas and in the older downtown section. Lower-income housing

is located in pockets, most often near sources of employment - for example, communities of industrial workers who live adjacent to the Free Port and fishermen who live in West Point.

Land Tenure: All land in Liberia can be classified according to private sector and public sector ownership. Private sector ownership comprises all land held in fee simple title by individuals, business entities, institutions, etc. There is no legislation permitting cooperative or condominium ownership. Although no figures are available as to the percentage of land in private ownership, it is estimated that somewhere between 10 and 20% of the total land area is in private hands.

Public land comprises the remaining 80 to 90% of the land. By law, land not recorded under a fee simple title is public land. All public land is held by the national government, although actual administration may be carried out by a variety of government agencies.

Public lands are utilized and, in cases, disposed of, in several ways.

a. Tribal lands are those lands owned collectively by a tribal group, as represented by the tribal leader or chief. The government has enacted legislation recognizing the traditional land rights of these indigenous groups. In turn, the tribes may not dispose of any tribal lands without the concurrence of the government.

b. The government may lease lands to companies (i.e., concessions) for agricultural, mining, or other exploitative purposes, iron ore and rubber latex being the two most common concession products. Most often these lands are leased to foreign companies for periods of up to 50 years, with options for renewal for another 50 years. All improvements to the property revert to the government on termination of these leases.

c. The government may make eleemosynary grants of land to non-profit benevolent groups, including foreign groups. These grants may be rescinded in the event the group ceases to exist or the original purpose for which the group was created and received the grant changes.

d. The government may sell parcels of land to individuals who wish to use the land for productive purposes. Today this occurs most often in the

case of agricultural land but it might apply also to land destined for conversion to subdivision use. The government may make unrestricted grants to individuals. In the formative stages of the republic, this was quite common; today, it seldom occurs.

e. Finally, squatters on public land sometimes pay a land rent to the government. This is the case, for example, of West Point, where squatters pay between \$5.00 and \$15.00 per month for the plot on which they build housing. In other squatter areas on public lands, squatters pay no rent.

Aliens are not permitted to own land in Liberia. Non-blacks cannot become naturalized citizens of Liberia, which effectively excludes the large Lebanese community and most westerners from owning land. Foreigners may lease land for periods of up to 20 years, with an option to renew for an additional 20 years, provided there is at least a 10% dollar increase in the lease value. Liberians may lease land for an indefinite period, however in reality most leaseholds to Liberians follow the terms of the law set down for non-Liberians.

Land Availability in Monrovia: The availability of land in Monrovia is limited by the physical contours of the city as described previously and a rapidly increasing demand for space to satisfy population growth. It is estimated that there are only about 200 acres of unoccupied, buildable land in Monrovia proper. Most of this land is in small non-contiguous plots and is held for future family needs, for reasons of financial security, or for speculative purposes. In fact, much of this land may be held for cultural reasons; most Liberian landowners prefer to retain property ownership unless forced by circumstances to do otherwise.

When Monrovia was originally settled, the downtown center was laid out in  $\frac{1}{2}$  acre lot sizes. Today, most subdivisions for residential housing continue to follow this pattern.

Large acreage (over 25 acres) is generally not available in the greater Monrovia area, which includes the metropolitan area to Congotown and Bushrod Island. An exception is the Madadi site, where the King family owns some 200 acres. As the distance from the city center increases, larger acreages are found. In Paynesville, Barnesville and Gardnersville, all of which are on

the periphery of Monrovia, sites of 25 acres are more common, while some sites in the hundreds of acres are available.

Accumulating acreage for housing project development in Monrovia is difficult. Large parcels are owned by a few families who prefer to subdivide for land sales rather than to develop housing projects. The UNDP Housing Team identified 22 large parcels of land in the Monrovia area suitable for large-scale housing projects. The NHA has been able to begin negotiating for only a few of these sites.

The two most suitable large sites in the Monrovia area are the 232-acre Matadi site and the 203-acre Mensah site. The NHA is currently negotiating with the owners for purchase of these sites for housing projects. The NHA has been negotiating for the Matadi site for five years, but there are problems here that are typical of any large land purchase. Delays occurred because of difficulties in negotiating the sale price and disputes over title. In addition, the owners had already sold some 150 plots, scattered throughout the site. The government has made a final offer of \$490,700 for the site, or an average of \$2,100 per acre, which will be placed in an escrow account for payment to the King family and re-purchase of the plots already sold. Although there is no legal way to force the current owners to sell their plots, the NHA is convinced that the government will be able to do so.

The government does not own any identifiable land in Monrovia suitable for new housing development. Moreover, the government effort to use the right of eminent domain to obtain land for housing has been thwarted. The only recent case where a large site was accumulated for building purposes was the development of the new industrial park, where eminent domain rights were exercised to acquire some parcels. Eventually, a part of this site was used for housing.

An alternative to expropriation would be a revision of the property tax laws to include increased taxation on unimproved property. This would tend to encourage landowners to sell non-productive urban land, part of which could be used for residential project development. In turn, this would possibly reduce land costs as the supply of land increases. However, for

political reasons, this is not likely to happen.

NHA Land Acquisition Activities: In addition to the sites at Barnesville and Gardnersville, where projects are under way, the NHA has identified three other sites for immediate action. Interested architectural, engineering and consulting firms have been asked to submit proposals for engineering and civil work studies for each of these sites. The sites are described as follows:

a. Matadi: This site, which the NHA has been trying to buy, consists of 232 acres of high land and another 55 acres of possible reclaimable land. There are a number of housing units on the site; some belong to villagers who have been permitted by the owner to occupy and build homes there, while others are built on lots sold previously by the owner. The site is only 3½ miles from the city center, being one of the closest large acreages to downtown Monrovia. There is one access road but no adequate water and sewage facilities.

b. Mensah et al: This site is located on Bushrod Island, opposite the Liberia Cement Corporation and adjacent to the two-lane Monrovia Freeway. There are about 250 acres of varying degrees of suitability here - highland, reclaimable and unreclaimable. The location of the site is favorable with regard to sources of employment and transportation. Water and sewer lines run parallel to the site. The site is held by several owners, all of whom have not yet been identified.

c. Buzzi Quarters: Located south of Bassa Community between Capitol Hill and the Atlantic Ocean, Buzzi Quarters has about 32 acres of densely occupied residential buildings, about a third of which are substantial structures while the remaining two-thirds are inadequate and temporary shelters. In the low areas, the drainage system is inadequate, while water and sewer facilities are sub-standard. The majority of the inhabitants are low-income wage earners. The entire area has been subdivided into small lots, all of which are privately owned. The objective of this NHA sponsored study is to identify new land uses with the idea of converting the area to a community of middle and upper-income families. The lower-income families will for the most part be relocated.

The NHA is also negotiating to acquire 150 acres along the Monrovia Freeday close to the Kakata Intersection at an area known as Nizo and an additional 200 acre site along the Kakata Highway.

Land Costs: As in all urban areas, land costs in Monrovia are a function of location and scarcity. The most expensive parcels of land are in downtown Monrovia where the cost of an acre of land is about \$12,000. In the Sinkor/Congotown area (see "A" on attached map), the closest area to downtown with a considerable number of buildable plots for sale, an acre of high land will run almost \$4,000 while an acre of low but reclaimable land will cost about \$2,400. In the Paynesville area (see "B" on map), which is still fairly accessible to the central city, the price of land ranges between \$2,000 and \$3,000 per acre. To the north, past Bushrod Island, an acre may cost between \$1,000 and \$1,500 (see "C" on map), while at the extreme limits of metropolitan Monrovia, an acre may cost as little as \$600 (see "D" on map).

Sales prices are negotiated. When a government agency is the buyer, the sales price is usually lower than that obtained by a private buyer. This is because the government often buys large tracts of land, thereby lowering the price per acre. In addition, the government marshals a large number of arguments encouraging the seller to lower his price. On the other hand, the government's slowness in settling payment at times discourages some property owners from entering into negotiations with government agencies.

Transfer and Registration: The current property transfer system is often confusing and contentious. Delays are frequent, due to the inability of the potential purchaser to locate a valid title and to prove that the seller actually has title to the property in question. Invalid titles are often transferred, leading to long and costly litigation. Multiple sale of titles is not unknown and until recently, such activity was not even a criminal offense. Another obstacle to orderly transfer of titles is disputes due to joint tenancy, because of the frequency of multiple families. Several wives and the offspring of these wives in the same family disputing the ownership of a piece of property for sale can lead to years of court proceedings.

In an effort to correct some of these abuses, the government is currently changing its property registration system. Though the new system covers only a small section of Monrovia to date, it will eventually replace the existing system throughout Liberia.

The existing system is generally known as the Deed System. The basic document used in transferring a fee simple title is the probate and registry deed. This deed includes provisions for a description of the property, the terms and conditions of sale, and, in more recent years, a map of the property described in the deed. Both parties sign the deed, which in turn is presented to the Probate Court judge in the District Circuit Court in which the property is located. After a one month public notice period, the probate judge signs the deed and forwards it to the National Deeds Registry Office for recording. Every deed is copied out in longhand into a bound book, which, as it is filled up, is placed in the government archives for safekeeping. As no parcel or plot index is maintained, title searches are difficult. Moreover, the deed does not contain a history of the transaction of the particular parcel of land, and the seller therefore is not able to authenticate ownership. These very obvious shortcomings encourage fraud, errors, and time-consuming title searches, and have led to recognition of the need to change the property registration law.

After several years of study, a new law, entitled "The Land Registration Law," was enacted in 1974. A team of UN experts was assigned to the National Judiciary and the Ministry of Lands and Mines to assist in the implementation of this law. To date, one section of downtown Monrovia with 706 individual parcels of property in one contiguous area have been surveyed; of this number, 68 have been registered. Several other sections have been identified and are now being surveyed. The UN assignment has been completed except for one technician who will depart before the end of the year.

The new registration system substitutes land registration for title registration. In the former case, each piece of property corresponds to a deed which is exchanged when the property is transferred. Each transaction

is recorded on the deed, allowing the purchaser to know the history of the property and thereby lessening the chance of fraud. An identical copy of the deed is maintained in a folio with all the other parcels of land in that section. (In the only section so far surveyed and numbered, there will be 706 land deeds in the section folio). In the case where a property owner loses his deed, he will still be able to identify his property by address and therefore by folio. The new system will not eliminate any problems resulting from inefficient registry office management and record maintenance, however, the problems of excessive time for title search will be eliminated and the chance of fraud lessened. In addition, a cadastral survey will be undertaken. The cost of implementing this new system should be outweighed by the decrease in court costs and litigation.

Eminent Domain Rights: The government can exercise its right of eminent domain in those cases where the public need supersedes private property rights. Eminent domain, therefore, is most often applied in cases of public works construction, such as roads and public structures. In all instances, financial compensation is made to the original property holder.

The Ministry of Public Works generally designates which lands should be expropriated. The value of the land is assessed by the Claims Commission, which is comprised of four National Ministers plus the Auditor General of the Republic.

The right of eminent domain is seldom exercised; in fact, there has been only one instance in the past two years. Most often, the government is able to arrive at an equitable sales price through negotiation with the owner. One little known fact in Liberia is that each eminent domain action must be approved by the National Legislature and the President of the country. This possibly time-consuming legislative phase helps to ensure the more speedy use of negotiated property transaction.

The right of eminent domain has never been used by the government to acquire land for housing for sale. In one case, the NHA used one parcel of land (110 acres) of a large 1000+ acre site which had previously been acquired for industrial use. The law is generally interpreted as not permitting the use of eminent domain to obtain land for housing purposes.

Property Taxation: The Real Estate Tax Office of the Ministry of Finance is responsible for property taxation assessment and collection throughout the country. Rates are assessed on the market value of the property and based on the use of the property as follows:

- Residential property occupied by the owner - 5 mil.
- Residential property which is rented or leased in part or whole - 20 mil.
- Commercial office property - 20 mil.
- Industrial property - 10 mil.
- Agriculture property - 2.5 mil. of value of produce.

Unimproved urban land is assessed at \$2.00 per plot <sup>1/</sup> or any portion thereof. The government has recognized that the low rate of taxation on unimproved land encourages the holding of land for speculative purposes and inhibits urban planning. Therefore, a site value system of property taxation for unimproved land is being considered as a substitute for the present system; however, no new legislation has been prepared and approved to date.

There is also a Realty Lease Tax which is assessed on all property leasing contracts and pertains principally to commercial and office property.

Collection of real estate taxes is improving and, in fact, revenues have increased over the past three years from \$540,000 to \$1,200,000. However, there are many obstacles to maximum collection. The limited postal system and lack of a home delivery system prevent mailing of tax notices to property owners who do not have post office boxes. As an alternative, the Ministry of Finance has to use personal carrier services, thus raising collection costs. Identification of the property owners is often a problem, due to the faulty property registration system. And in cases where the owner is known, it is sometimes difficult to locate him. Third, some of the larger, more influential property owners have been able to escape property taxation altogether.

Zoning: There are no zoning laws and regulations in Liberia <sup>2/</sup> Certain areas of the city have been either officially or informally designated for certain

<sup>1/</sup>A plot is usually  $\frac{1}{2}$  acre.

<sup>2/</sup>Several sources indicated that zoning legislation had been enacted at some time in the past; however, the team was unable to locate a copy. Moreover, the Ministry of Public Works was unaware of any such legislation.

purposes, i.e., the industrial park and certain housing projects developed by NHA. The Ministry of Public Works has under consideration a zoning control plan, though nothing has yet been established.

Building Codes and Minimum Standards: The Ministry of Public Works is responsible for insuring that adequate construction standards are followed. However, there are no written building codes or minimum standard regulations. For substantial construction, that is, buildings constructed with permanent materials, the Ministry requires a building permit. This is a rather informal process, in that the Ministry merely reviews the plans submitted and gives its approval. There is no fee for this process nor is there a penalty if construction takes place without government permission. Apparently, building permits are obtained for only the most obvious building projects.

## VI. Housing Finance and Development Institutions

The public institutions participating directly in housing and urban development are the National Housing Authority (NHA); the National Housing and Savings Bank (NHSB); the Department of Urban Affairs within the Ministry of Local Government, Rural Development and Urban Reconstruction; the Ministry of Planning and Economic Affairs; the Ministry of Action for Development and Progress; and the Ministry of Public Works. The most important of these institutions, the NHSB and the NHA, are relatively new and have not yet had a major impact on the housing sector. In addition to public organizations, there is some limited involvement by private institutions, mainly commercial banks, in housing.

### A. The National Housing and Savings Bank

The NHSB was created in 1972 to fill the need for a housing finance institution to support housing development by both the public and private sectors. It did not open until 1976, but now has a newly-appointed president, who is rapidly creating an institution capable of carrying out the task set for it: to be the central housing finance institution in Liberia.

An independent mixed public-private corporation, the NHSB works closely with the NHA, Ministry of Finance and private institutions. The Government of Liberia holds all voting stock.

As stated in the National Housing and Savings Bank of Liberia Act of 1972, the Bank's object and purpose "shall be to provide the financing required to satisfy the housing and building needs of the citizens of Liberia, including the making of long-term loans for home ownership." It has the power to:

- a. transact the business of a savings bank, including receiving deposits, loan and invest, pay interest on savings accounts, pay dividends on its shares;
- b. enter into agreements with any agency of the Government of Liberia, foreign governments, international agencies or private entities;
- c. acquire, own, and dispose of any form of property, real or personal;
- d. collect on its obligations, including filing suit, where necessary;

- e. open bank accounts;
- f. borrow funds; and
- g. take all actions necessary to carry out its purpose.

The NHSB comes under the general supervision of the Minister of Finance, who also serves as Chairman of the Board of Directors. Statute requires that the Board of Directors of seven to nine members also include the Director of the NHA, a member from the Ministry of Planning and Economic Affairs, and at least two members from the private sector. The President of Liberia appoints the remaining directors for non-concurrent three-year terms.

Since the NHSB has been in operation for less than a year, a detailed financial review of its performance is not yet available. The balance statement as of August 1976 (Appendix 1) indicates total assets of some \$3.6 million, of which only a small share is held in the form of mortgage loans to households. The government contributed \$1,470,000 in capital, of which \$750,000 was in cash and the balance in the form of buildings and land for the NHSB.

Since it began operations, the NHSB has concentrated primarily on extending loans to households wishing to complete existing structures; very little financing has been made available for new construction. Lack of mortgage financing in the past has forced most Liberians to build on a "cash and carry" basis over a period of years; hence the large number of partially-completed structures in Monrovia. The NHSB views its first priority as the completion of these houses.

The terms of the Bank's lending for this purpose are flexible and are based on a case-by-case review of borrowers' repayment ability. Loans range from \$6,000 to \$30,000 at an annual rate of interest of 12%. Loan limits are normally based on a debt servicing ratio of 30% of household salary with a maximum of \$30,000 available for qualified households whose dwelling is at least 40% completed. The Bank secures its loans by requiring the borrower (owner of the property) to sign the deed of his property over to the Bank until the loan is paid off. The beneficiaries of the program will be mainly upper-income households.

Eventually, the NHSB wants to extend home improvement loans to lower-income households. It recently embarked on a pilot project in West Point to provide such financing for residents of that community.

The NHSB has introduced several innovative schemes to encourage persons to open savings deposits. They include monthly payroll-checkoff programs for employees of local business establishments as well as employees belonging to unions. Incentives (interest rate differentials) will be given to persons saving for extended periods of time. From the time of its opening early in 1976 through Aug. 31, 1976, the NHSB had 4,219 savings accounts on its books, totalling \$712,293; the average deposit is \$169. Currently, the NHSB is paying 6.5% on savings accounts; deposits held for one year or longer yield 8.5%.

The NHSB believes that within three years it will be able to capture 10% of total savings generated in Liberia, or roughly \$2.5 million, based on the present level of savings deposits held in the country. This estimate is based on the fact that there are five savings institutions in Liberia and that the NHSB will initially be able to draw only one-half of its proportionate share.

The long-range objective of the NHSB is to provide housing finance to lower-income households. The Bank would provide savings deposit services only in Monrovia and would generally make loans only for financing of housing construction and for permanent mortgages. Outside of Monrovia, however, the Bank proposes to offer a full range of commercial banking services and would finance rural development as well as housing.

#### B. National Housing Authority (NHA)

The NHA was created in 1970 as a public corporation to promote housing development in Liberia. To carry out this task, the enabling legislation permits the NHA to:

- a. perform research and surveys to help identify the housing need and propose housing solutions;
- b. plan, design and build housing projects;
- c. purchase and sell land;

- d. borrow and otherwise raise money for housing development projects; and
- e. enter into agreements and contracts so as to implement the above points.

Authority is vested in a seven-man Board of Directors. Members, who are appointed by the President of Liberia, include four national ministers, the Chairman of the Public Utilities Authority, the Manager of the Liberian Development Corporation and the Director of the NHA, who also serves as Executive Secretary of the Board. The Director of the NHA is also the Chief Operating Officer of the institution. There are a Deputy Director and four operating sections -- Finance, Operation, Urban Development and Research, and Administration --each of which is headed by a section chief.

In the actual production of housing the National Housing Authority is responsible for organizing and carrying out the following activities:

1. Programming - the collection, analysis and evaluation of socio-economic data related to housing; the determination of the extent and kind of market for housing and the setting of design criteria for housing and communities.
2. Physical Planning and Design - the selection and analysis of the characteristics of sites, site planning and the design of housing to fit socio-economic needs and market demand; and research, development and design of appropriate structural systems.
3. Construction - the preparation of documents for bidding, negotiating contracts for construction, engaging in construction, supervising and managing construction.
4. Marketing and Management - advertising and marketing housing and community facilities, setting occupancy standards and selecting tenants, negotiating leases and terms of financing, managing and maintaining housing and sites.
5. Coordination - coordinating its activities with those of other agencies or ministries with responsibilities related

to housing such as the NHSB and the Ministries of Planning, Local Government, Public Works and Action for Development.

The NHA has engaged in all of these activities at various times and to one degree or another since 1970. But because the agency could not fulfill many of these responsibilities and did not produce enough housing to make a significant impact on the housing needs of Monrovia, it has come under constant criticism and been denied much of the authority it needs to operate properly. Appendix 2 gives an indication of the housing activities of the NHA today.

### Programming

In the area of socio-economic and market research the NHA has been unable to gather and analyze the data needed to define the housing problem accurately. While the Four Year Development Program has a good outline of general problems, the NHA is unable to put these general needs into an operational framework because it has not identified or quantified specific data on such things as living and employment patterns, community relationships, and densities. This means that the NHA's design section has not been given the information it must have to produce appropriate housing designs. The 1975 annual report recognized these shortcomings and put the blame on insufficient staff and an inadequate budget.

The NHA has scheduled a study of the sites and services concept by its socio-economic team to begin in mid-October 1977. No outline of its task or assignment of manpower was available to the mission.

The UNDP Housing Team attempted to gather socio-economic data on the West Point area, but by its own definition its reports are fragmentary. As funds become available, the NHA plans to initiate a number of research projects, among which are an analysis and identification of local construction materials, and research into the construction materials industry. The NHA also plans to prepare an occupancy handbook for residents of NHA projects, and to set up a monitoring system for recording housing activities if funds become available.

### Physical Planning and Design

Because the NHA has been directed by a number of ministries and agencies, it is difficult to determine who has been responsible for setting priorities and standards of design and planning. However, the mission found the design products of the NHA limited in relation to known housing needs. Almost all the agency's effort has gone into the design and construction of a party-wall tract house (Fig. 25) similar to American tract houses, built on formally aligned sites (Fig. 23) and based on American or European models. As both Cabral and Tolbert estates were intended for low-middle income families, these designs seem inappropriate. Although exact figures are not available, it has been estimated that 60% of Monrovia's population live in "extended" families, which means members of several generations and diverse relationships form a large family with more functional requirements than were ever envisioned for the standard tract house.

There has been very little demand for NHA's one and two-bedroom houses, and they have been phased out. Even the three-bedroom houses (Fig. 24) fail to meet the needs of the extended family and the clan groupings which these families often form. These houses do not provide the kind of circulation, provision for outdoor activities or climate control so important for low and middle income families. Liberians of all income groups are accustomed to comparatively large rooms and the original three-bedroom model at 1,050 square feet tries to reflect this. As so often happens, however, rising costs intervened and the size of the house had to be cut, so that the three-bedroom houses (Norwegian system) now being built have only 604 square feet and are very cramped (Fig. 27). In these small houses, little rooms with small windows and the random orientation to prevailing winds make it hard to use natural means for cooling and force tenants to consider air conditioning, an expense which puts this housing even further from the reach of middle income families.

The same is true of the site planning. The layout of Tolbert Estates is in the standard international style for tract housing of a decade or two ago -- houses lined up side to side or back to front in varying num-

bers, streets bent to relieve monotony, and boulevards used as the organizing element. But nothing in this plan seems to take into account Liberian living patterns or climate. The project was meant to accommodate a fairly wide range of incomes and, therefore, living styles, but the plan itself does not reflect this intention. There is no clustering to form sub-neighborhood or clan groups, no outdoor space for group use except in a very formal sense in plots for stores, church and school.

All over Monrovia, and not only in the low-income settlements, people make all or part of their income from small shops set up at their front doors. Whether the money earned is significant or not in terms of the city's overall economy, this provides wide-spread occupation for a large percentage of the population, and is likely to do so until other forms of employment are commonly available. These small shops require a large volume of pedestrian traffic in a confined area, conditions not found at any of the NHA projects. One front-door shop was seen at Tolbert Estates (Fig. 29) but Tolbert's low density will keep this activity from spreading and prevent lower-income families from engaging in activities which have occupied their time and added to their income. As a result, the NHA projects have built-in social or group distinctions and are limited to serving a small segment of the city's society.

It is true that there is a need for housing at all levels, and NHA projects help fill the needs of educated, regularly employed people with incomes in the upper 25% bracket; but there is no basis for classifying present NHA projects as low and middle income housing. The design of the houses, the layout of the sites, and the cost all argue against this.

A case in point is Cabral Estates -- 72 units in the first project finished by the NHA -- in which occupancy characteristics have been surveyed. All of the tenants are regularly employed high school graduates earning \$200 to \$400 per month. Even so; the monthly payments for these units are not sufficient to amortize their total cost.

The NHA set out to confront the overall housing problem by providing programs for all the areas of housing not adequately covered by private construction. In its own broad terms this was called low and middle

income housing. However, it settled on a single approach, still calling it low and middle income housing, which actually came into the market at the upper middle income level. With rising costs and reduced square footage this housing may be losing even this market and, at best, will have to be kept afloat by very large government subsidies.

In its current design activities the NHA is finishing the Barnesville project (500 Norwegian system houses and community facilities) and preparing for the development of the Matadi, Mensah et al, and Buzzi Quarter sites. The Matadi site, the largest and most desirable residential site close to central Monrovia, has been under consideration for several years and the failure to procure it for earlier development was one factor leading to departure of the UN team. Now that its availability is imminent, the NHA is moving ahead with design development. It intends to mix lower, middle and upper income housing for two reasons: to use the return from middle and upper income families to help pay for low income infrastructure, and to use the presence and standards of the better housing to keep low-income sections from deteriorating. The preliminary design for the Matadi site does not seem to improve upon the plans used at Tolbert and Barnesville.

The Mensah et al site has been designated for sites and services and core houses, and Buzzi Quarters for commercial and upper income residential development as an adjunct to the government center.

The NHA has begun the development of all three of these sites by issuing an invitation to tender bids for comprehensive engineering and technical studies including master plan and sub-division design. Unfortunately, the successful completion of this work depends on data, policies and housing designs which the NHA has not yet developed.

Throughout its six-year life the NHA's staff and its many outside analysts have talked about the need to design programs for sites and services, aided self-help and core housing. Some design work has been done and a few core houses built, but the substantive work needed to get such programs underway has yet to be started. The core house design now being considered is simply a stripped version of the tract house previously discussed and is far too finished to offer the savings which would make it

accessible to a much lower income market. The NHA has done even less with the concepts of sites and services and aided self-help, which, in conjunction with upgrading, offer the only access to improved housing for the lower income groups. The Harvard report on education cites success with self-help construction in rural school building. Since many residents of the squatter communities have recently come to Monrovia from rural areas, organization for self-help projects may be more feasible there than in other areas of the city. These ideas require greater expertise in community analysis and development, trade or building cooperatives, site planning and infrastructure design than the NHA staff now has.

Similarly, there has been no development of other potentially useful concepts of housing: row and cluster houses, medium-rise, walk-up flats, condominium ownership, mixed income and mixed use (residential/commercial housing, and higher income rental flats. At the same time, there has been very little study of land use, appropriate densities, and intra-urban relationships.

### Construction

In May, 1976 the operating (construction) section of NHA was closed. Until that time NHA was in the construction business as a general contractor. It is generally felt that the NHA should not have gone into direct construction in the first place except, perhaps, for small-scale experimental work and that it should limit its rôle to overall management and supervision. So much of its energy and resources went into construction, which could have been handled by private contractors, that the NHA was unable to fulfill what is now seen as more important roles in research, programming, design and management.

The NHA's activities are now limited to supervising the construction of the houses being built at Tolbert and Barnesville under the Norwegian system. This system uses the standard NHA tract house plan and replaces the cement-block walls with prefabricated expanded mineral panels imported from Norway (Figs. 26, 27). In all other respects the methods and materials

of construction are the same as those in NHA-built houses. Heavy criticism of both the building system and the terms of the loan backing it have come from the UNDP housing team and both public and private agencies analyzing the project. The imported panels are more expensive, are much less labor-intensive, and are less sound than block walls. The cost of a 604 square foot (3 bedroom) house is now between \$12,000 and \$13,000 or between \$19.86 and \$21.52 per square foot, not including infrastructure. In Barnesville the cost of infrastructure brings the unit price to more than \$16,000. This is three times the total cost (\$5,560) for which the UNDP housing team proved it could build a three-bedroom house in 1974 and twice that cost, adjusted for inflation, in 1976. If existing rents (\$50 to \$70 per month) are to be maintained, the Government may be forced to subsidize heavily all the new and projected Norwegian housing. Without subsidies, even middle and upper middle income families will be unable to afford this housing, and it may not be competitive with privately produced housing.

In addition to housing, the NHA has been responsible for the design and construction of infrastructure and community buildings. This further strained the NHA's capacities and proved to be among its most difficult tasks. Construction of roads and water control has been a problem in all NHA projects (Figs. 24, 28). This is partly the result of the failure of other agencies, particularly the Ministry of Public Works and the Water and Sewer Authority, to provide adequate supporting infrastructure in areas surrounding NHA projects. The mission sees the inadequacy of infrastructure and the lack of a comprehensive plan for development as major factors in Monrovia's housing problem. Early in 1977 the World Bank will begin an 18 month comprehensive study of urban transportation problems. Future plans for housing should borrow from and be coordinated with this study.

#### The UNDP Housing Team

The frequent references to the UNDP Housing Team throughout this report attest to its importance in the work of the NHA. Between 1972 and 1974 the team provided assistance in the formation of policies and

strategies, in management, research and construction, and in establishing a national housing finance institution. Most of the completed projects and current work of the NHA are the result of the team's assistance.

Within the role that it chose to play, the team was vital to the NHA's operation. This mission believes, however, that the UNDP team focused on too narrow a task and put too many resources into the development of a single form of housing -- the party-wall tract house -- which has not been suitable for low and middle income families.

Marketing and Management

As it has completed projects the NHA has had to select and install tenants, collect monthly payments, and maintain and manage its estates. So far it has found a ready market for its houses. The rent levels are:

3 bedroom house,	1064 sq. ft.,	built 1974 . . . . .	.\$50/month
2 bedroom house,	728 sq. ft.,	built 1974 . . . . .	.\$37/ "
1 bedroom house,	580 sq. ft.,	built 1974 . . . . .	.\$27/ "
2 bedroom house,	728 sq. ft.,	built 1975 . . . . .	.\$54/ "
3 bedroom house,	1064 sq. ft.,	built 1975 . . . . .	.\$70/ "
3 bedroom house,	604 sq. ft.,	built 1976 . . . . .	.\$70/ "

Average utility costs (water, sewer, electricity) are about \$20 per month according to the NHA, although an analysis of actual billings by this mission indicated a range for a 3 bedroom house of \$20 to \$52 per month. For a 3 bedroom house the combined rent and utility cost is from \$70 to \$120 per month, clearly beyond the ability to pay of 60% and perhaps as much as 80% of Monrovia's families.

The NHA foresees difficulty in marketing its latest 3 bedroom houses which have been reduced to 640 square feet in size. In any case, it does not have the programs and personnel required for such an effort. It is worth noting that the owner, who must surrender the actual deed to his house in his financing agreement, may not easily develop the sense of ownership which will encourage him to make his payments and maintain his property. Under present terms he is more a tenant than an owner.

The rent levels listed above are insufficient to amortize total con-

struction costs. Even in Cabral Estates monthly charges cover only the cost of the houses, not infrastructure. In Barnesville, monthly payments will cover less than half the cost of the house alone. This means that the government is providing a substantial subsidy to middle and upper middle income families at a time when almost no subsidies are available for low income families.

Most of the housing now in use is nearly new and the NHA has not yet had to face extensive maintenance. This may become an increasing problem for which the NHA is not presently equipped.

### Coordination

The NHA's authority and relationships with other governmental agencies are difficult to define, even though ministers of these agencies are represented on the NHA board. Until the agency defines its authority and clarifies its own responsibilities and those of other governmental organizations to eliminate overlap and confusion in housing policy and programs, it will not be able to operate effectively.

### Housing Finance

There have been two principal sources of housing finance to NHA: the Government of Liberia and a private Norwegian institution. The NHA's only source of funds from 1970 through 1974 was government budgetary grants. In 1974 alone, NHA received some \$700,000 for housing development; these funds helped finance the Cabral project. In 1975, the government authorized \$3,750,000 in budgetary assistance, of which the NHA received \$500,000.

In January 1975, a private Norwegian financial institution made a \$9 million loan to NHA. This loan is being disbursed in accordance with the Tolbert Estates construction schedule. The Government of Liberia is the borrower, and the National Housing and Savings Bank is the administrator of the loan. Total housing finance from the two sources added up to \$6.5 million as of August 31, 1976.

The NHA is investing these funds in housing projects as well as using them to cover administrative costs. To date, \$5.3 million has been invested

in housing projects, some of which are now producing income from amortization while the remaining \$1.2 million has been invested mainly in plant and equipment or is being held in bank cash accounts. Some \$54,000 in accounts receivable appears to be income due from delinquent accounts (Appendix 3).

As of Aug. 31, 1976, the NHA had an accumulated deficit of \$133,000. Losses during the first few years of operation may be regarded as normal for any housing development institution. The institution's liquidity is good, as cash on hand (\$274,000) as of August 31, 1976 is greater than total administrative expenses for the first eight months of operation this year (Appendix 4).

### C. Government Ministries

A number of government agencies participate in national housing policy and programs as well as in planning and providing housing for Monrovia. Overall planning and development of housing policy is the responsibility of the Ministry for Local Government, Rural Development and Urban Reconstruction, which also is to coordinate the activities of the Ministry of Public Works, the NHA, and the Utility Authorities. The Ministry of Action for Development and Progress, though primarily responsible for rural action programs, has undertaken urban housing projects on an ad hoc basis. It has built more than 100 houses at Tolbert Estates (Figs. 23, 24, 25) and has cleared a large area of low-income housing at West Point (Fig. 4). The Ministry of Planning and Economic Affairs is responsible for the collection and processing of housing data, for collecting and evaluating proposals for building projects from all governmental agencies, and for coordinating and assigning priorities to these proposals. In addition, the municipal government of the City of Monrovia has an obvious concern for housing in the capital.

### The City of Monrovia

The city of Monrovia had its first mayor and strong city administration in 1935. In 1922, however, the city's charter was revoked and the elected mayor replaced by an appointed commissioner whose functions were mostly ceremonial. The name of the city was changed to the Commonwealth

District of Monrovia, the City Council was abolished and the national government, through its national ministries, began to perform what had been regarded as municipal functions. For the next 53 years, the national government, through its national ministries, exercised de facto control over the performance of municipal functions and the provision of municipal services, such as police and fire protection, planning, tax assessment and collection, and collection of motor vehicle and real estate fees and fines.

The 53-year period of national government administration of Monrovia came at a time of substantial population growth, which strained the city's housing and public facilities. For many reasons, the city was and still is unable to meet the needs of its expanding population. Many essential facilities and services such as sewerage, electric power and protected water are not available to all citizens; the housing stock is in short supply and is deteriorating rapidly; streets and sidewalks require major repairs even in the central business district; and social services required to support an urban population are inadequate. It is possible that with "home rule," Monrovia's citizens will be more involved in its government and that residents' needs will be better considered and conditions improved, if the necessary financial and technical resources are available.

However, even though a city government exists, it is unclear whether the municipal government will be able to influence the problems of housing and related issues. The question arises because at this time the city administration is not independent, but rather is viewed by many as a department of the national government. The fact that the city's budget is contained in the budget of the Ministry of Local Government, Rural Development and Urban Reconstruction supports this notion. The city also lacks its own police force and fire department, although it does use trucks owned by the Ministry of Local Government to collect garbage.

While the city government has the authority to tax persons and things within its jurisdiction, in reality there is little room for it to exercise this authority, since the national government has pre-empted most areas. Nonetheless, the city is collecting a small tax from vendors at the markets and a fee for the collection of garbage. Ordinances are pending which will authorize the imposition of a per capita tax and a business tax. If these

are passed, the city administration will have a limited amount of funds to use for delivery of essential services.

The Mayor and other city officials do not take part in urban development planning and implementation. Neither the mayor nor any of his representatives are members of bodies, such as the NHA, the utilities or the National Planning Council, that determine how the city will be developed. In most of these forums the Minister of Local Government, Rural Development and Urban Reconstruction is an active participant. The question remains, however, whether his presence obviates the need for the participation of the Mayor in these bodies.

The national ministries continue to play a crucial role in the development of housing in Monrovia as well as in the design and delivery of services required to support housing in the urban environment. Besides the three mentioned above, on which details are given in the following sections, there are the Ministry of Education; the Ministry of Health and Social Welfare; and the Ministry of Finance. The fact that so many ministries are working on the same or closely related issues indicates that duplication of effort, lack of coordination, and lack of clearly defined responsibilities among agencies are problems faced by the government in housing.

#### Ministry of Local Government, Rural Development and Urban Reconstruction

The Ministry of Local Government, Rural Development and Urban Reconstruction has broad jurisdiction in Liberia and Monrovia. Local governments operate and receive their budgets through this Ministry, which plans and executes a wide variety of programs in both urban and rural areas. The Minister also serves as Chairman of the Board of the National Housing Authority.

In order to carry out its functions, the Ministry has Deputies for Administration, Urban Reconstruction, and Rural Development. It also has an Assistant Minister for Tribal Affairs. Two units appear to be most significant in planning and development: the City and Town Planning Division, and County and Territorial Planning. All units are supported by planners, architects and engineers.

There is a recognition of the need for physical planning in Monrovia. As the Annual Report of the Urban Reconstruction Division dated December 31, 1975 stated:

The Division also realizes that Monrovia, the capital of the nation, has been allowed to develop and grow without any planning. In view of the fact that there was no institution for physical planning, and in view of the obvious need for such a program, the division has redefined its role as a National Planning Authority to do physical planning on the regional and urban levels.

Because of the nature of the Ministry of Local Government with its sweeping title and broad mandate, together with its internal perception of the role that it is intended to play in urban development, conflicts arise as the result of a lack of coordination on many specific projects in Monrovia. This applies especially when the project is ad hoc in nature. The situation will probably not improve unless there is a clarification of the roles of the various ministries in the urban sector and a corresponding reduction in the number of ad hoc projects.

#### Ministry of Planning and Economic Affairs

The Ministry of Planning and Economic Affairs has broad responsibilities in the development of urban areas inasmuch as it is responsible for overseeing the planning process in Liberia. It also serves as the secretariat for the National Planning Council. The Ministry operates a Bureau of Planning and Policy and Economic Research as well as a Bureau of Administration and Statistics. Each of these units is headed by a Deputy Minister. There are also assistant ministers for sectoral planning.

The Four-year National Socio-Economic Development Plan produced and approved by the National Planning Council indicates that housing "is probably the most serious of Monrovia's urbanization problems." The plan also recognizes problems of planning in urban areas when it states:

Some progress towards orderly development of the city can be made over the next few years by simply improving the existing urban development machinery. At present, zoning and enforcement of building codes are the responsibility of the Min-

istry of Public Works; town planning is part of the portfolio of the Minister of Local Government, Rural Development and Urban Reconstruction; NHA develops and implements housing projects; and regulation of public transport is a function of the Ministry of Commerce, Industry and Transportation. Existing laws make it very difficult to implement some policies, e.g. zoning and building codes, while lack of expertise has hampered other activities, e.g. town planning. A review of the urban planning activities of various agencies and conscious efforts to coordinate existing regulations will be a useful first step toward broader urban planning.

While there is a planning process to which this Ministry is a party, other ministries also undertake planning and developmental activities in Monrovia which fall outside this process and are ad hoc in nature. The Ministry of Planning and Economic Affairs is frequently not informed of the programs, and is therefore unable to provide the planning that may be required.

There is some feeling that this Ministry should play a larger role in coordinating the planning activities in urban areas. However, the relationship most desired is one of coordination at the ministerial level. Little or no consideration is being given to whether or how to relate to the newly elected Mayor and City Council of Monrovia.

#### Ministry of Action for Development and Progress

According to a report covering the period January 1, 1975 to October 31, 1975, the Ministry of Action for Development and Progress was established in 1972 by an Act of the legislature. Specifically, the report stated:

The Agency was created as an Agency of Government through which the President intended to demonstrate the quality of impact programs desired and to inspire national involvement from grassroots to the highest levels of Government. In this regard it was an Agency of Government established to coordinate services and facilities of Ministries and Agencies of Government for the implementation of planned action for the fulfillment of integrated development programs within the shortest possible period of time and at the optimum level of efficiency.

This Ministry has for the most part conducted its work in rural areas. It has, however, a record for involvement in the city of Monrovia which has taken place on an ad hoc basis, outside of the planning process. Interviews at this Ministry indicated that while the reputation is as stated, the agency has engaged in only two projects in Monrovia. One of these involved construction of three houses and the other the construction of a recreation center in West Point in cooperation with the Episcopal Church.

In both instances the President of Liberia gave specific direction for the projects. Both were ad hoc in nature, using funds made available quickly. (In the case of the recreation center, the Episcopal Church in Germany provided the funds.) It is clear that the Government of Liberia in these cases recognized the need for action and made a conscious decision to move rapidly toward the execution of the projects, disregarding the planning process. Current projects of the Ministry of Action for Development and Progress are part of the Agency's planning process: improvised, last-minute projects are considered only a small part of the agency's work.

#### D. Commercial Banks

There are six commercial banks in Liberia, of which only two have majority ownership by Liberians: the Bank of Liberia and the Commercial Bank of Liberia. Expatriate-owned banks include Chase Manhattan Bank; Bank of Monrovia, a wholly-owned subsidiary of First National City Bank of New York; International Trust Company, a subsidiary of International Bank of Washington; and Tradevco Bank, a wholly-owned subsidiary of Mediobanca of Milan. The Bank of Liberia, Bank of Monrovia, and Chase Manhattan control the major share of commercial bank assets in the country.

The Bank of Liberia owns the Liberian Insurance Company; the other five insurance firms are expatriate. Insurance companies serve as branch offices and do not invest in the Liberian capital market. Pension funds of large expatriate corporations are also held outside the country.

Banking statistics published by the Ministry of Planning and Economic Affairs show that total deposits with commercial banks have increased

substantially in recent years. Construction credits represented only 6 - 8% of outstanding commercial bank credits. These have been used chiefly to finance public works, industrial and commercial building. More than half of commercial bank lending is for import-export operations. Private home construction is chiefly financed by short-term (less than one year) personal loans.

Commercial banks pay 5% interest on savings and from 5.5% to 7% interest on time deposits. The banks set high minimum balances for demand deposits in order to force small depositors into savings accounts. Minimum balances on savings accounts range from \$10 to \$100, depending on bank policy. Inasmuch as some small savers use their accounts in lieu of checking accounts, most banks charge a fee for withdrawals over a set maximum number per month.

Personal loans, which represent a small share of commercial bank credits, are the only source of financing available to most Liberians for housing construction and purchase of materials or land. These loans are made for 10-12 months at interest rates of 8% to 10% discounted. Liberian banking regulations permit discounts of notes with maturities of less than one year. There are some limited medium term mortgage loans for purchase of land or housing, but because expatriates, including banks, cannot own land, mortgages on homes or land are of little value to most banks. Whenever possible, personal loans are secured by obtaining a limited Power of Attorney under which the bank may deduct monthly payments from the borrower's paycheck. The experience in obtaining loan repayments has been mixed, but some banks have reported that only 1% of small loans have to be written off, and that delinquencies are at about 10%. Monthly payments are generally very high because of the short term.

## VII. Economic Outlook and Investment Capacity

Reduced mining activity, particularly in the iron-ore sector, and reduced demand for Liberian exports following the recent world-wide recession were the principal factors contributing to the slackening of economic growth in Liberia after 1970. Real Gross Domestic Product (GDP) at factor cost was \$662 million in 1975, representing a decline of 1.1% as opposed to an increase of 2.8% in 1974. However, the decline in output during 1975 was offset by a marked improvement in Liberia's terms of trade; as a result, Gross Domestic Income actually rose by 21% in 1975. Export prices increased in 1975 by 43% on the average, largely on account of negotiated higher prices for iron-ore exports; while import prices rose by only 9%. This restored the purchasing power of the country's exports to the 1971 level and generated the substantial increase in real domestic income.

Domestic prices as measured by the Monrovia Consumer Price Index (MCPI) experienced a slower rise in 1975 than in previous years. The aggregate index rose by 13.5%, compared with 19.5% in both 1973 and 1974.

Government budgetary performance in 1975 was favorable. Recurrent expenditures grew more slowly than revenues. The growth rate of recurrent expenditures fell from 21% in 1974 to only 5% in 1975; despite a general salary increase of 13% and higher prices for goods and services purchased by government.

As a result of the movement in recurrent revenues and expenditures, the current budget surplus increased to \$47 million, or 38% of revenues in 1975. There was also a substantial increase in the net inflow of foreign revenues (grants, loans, and IMF transactions), which together with the larger recurrent budget surplus permitted the government to more than double its capital expenditures in 1975 to \$39 million. Despite these increased expenditures, the government still had an overall budget surplus which was used to amortize some domestic debt held by commercial banks and to improve its short-term cash position.

The commercial banks increased loans to the private sector by about 7% in 1975, or by substantially less than in the previous year. The reduction in the demand for credit in 1975 was caused principally by the negligible growth in imports and by the liquidation of inventories accumulated in 1974.

Exports earnings fell from about \$400 million in 1974 to \$394 million in 1975. The quantity of all major commodities exported fell in 1975, but unit prices generally rose. Iron-ore, the country's principal export commodity, accounted for about three-fourths of total exports by value.

The growth in imports slowed considerably in 1975; they were valued at \$337 million, only about 15% above the 1974 level. Imports increased by nearly 50% in 1974, primarily as a result of the unprecedented increases in world prices in that year.

The favorable trade balance which Liberia maintains continued to decline in 1975. The trend for recent years is as follows:

	(million \$)					
	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Exports (F.O.B.)	236	247	270	324	400	394
Imports (C.I.F.)	<u>150</u>	<u>162</u>	<u>179</u>	<u>194</u>	<u>288</u>	<u>331</u>
Surplus balance	86	84	91	130	112	63

Complete balance-of-payments estimates have not been prepared for recent years. Available data for 1975 suggest that the current account balance (trade balance plus net service and transfer payments) declined more sharply than the trade balance as a result of significant increases in factor payments abroad by the concessions operating in Liberia relative to the price increases obtained for concession exports. Consequently, net foreign assets of the banking system fell from \$8 million in December, 1974, to \$6.1 million one year later.

The total public debt (direct borrowing by the central government as well as loans to autonomous enterprises with government guarantee) outstanding and disbursed is estimated to have increased from \$152 million

at the end of 1974 to \$153 million one year later. Most of this debt is owed to foreign lenders (see Appendix 5). The average terms of the debt remained relatively soft with interest payments at about 3% and total service payments equivalent to about 15% of the outstanding debt. This reflects the increasing use of concessionary assistance from multi- and bi-lateral sources in recent years. The claim of debt service on the government's budgetary revenues also declined from about 20% in 1974 to 18.4% in 1975; total service payments were 6% of export receipts in 1975.

New commitments of foreign loans in 1975 further demonstrated government's increasing reliance on concessionary sources of assistance. Commitments were at a record level of about \$73 million, almost all from multi- and bi-lateral sources which provide extended maturity and generous grace periods, as well as interest rates lower than prevailing commercial charges. New loan commitments in 1975 are shown in Appendix 6. The high level of new loan commitments in 1975 provides a significant stock of foreign resources from which to maintain a high level of loan disbursements over the next several years.

Appendix 1

NATIONAL HOUSING AND SAVINGS BANK  
MONROVIA, LIBERIA

MONTHLY STATEMENT OF CONDITION

END OF August, 1976

ASSETS:

Cash	\$ 20,880.66
Due from Banks	12,226.61
Time Deposits	1,915,623.57
Prepaid Expenses - Sundry debit balances	13,902.90
Accounts Receivable	
Loans	355,707.68
Banking Houses Owned	350,000.00
Lease Hold Improvement	372,617.02
Start Up Cost	125,345.13
Furniture and Equipment	157,447.97
Accrued Income Receivable	6,590.16
Other Assets	257,494.99
Total Assets	3,567,836.69

LIABILITIES:

Capital	1,470,164.15
Reserve	
Savings Deposit	712,293.04
Demand Deposits	241,333.39
Certificate of Deposit	700,000.00
Investment Certificate	
Account Payable	18,220.80
Funds Borrowed	
Other Liabilities	425,825.31
Total Liabilities	3,567,836.69

Appendix 2

NHA HOUSING ACTIVITIES

Housing built, supervised or managed by the NHA:

<u>no. units</u>	<u>type</u>	<u>location</u>	<u>builder</u>
72	mixed (1,2,3 bdrm)	Cabral Estates	NHA
4	core (2 bdrm)	Tolbert Estates	Nha
76	2 bdrm	Tolbert Estates	NHA
20	2 bdrm	Tolbert Estates	Norwegians
34	2 bdrm	Tolbert Estates	Ministry for Action for Development and Planning
32	3 bdrm	Tolbert Estates	NHA
170	3 bdrm	Tolbert Estates	Norwegians
10	3 bdrm	Tolbert Estates	Ministry for Action for Development and Planning
<u>418</u>	Total occupied units under NHA management		

Housing under construction or contracted for:

<u>no. units</u>	<u>type</u>	<u>location</u>	<u>builder</u>
70	3 bdrm	Tolbert Estates	Norwegians (under constructio
76	3 bdrm	Tolbert Estates	Norwegians (contracted for)
500	mixed	Barnersville	Norwegians (contracted for)
<u>646</u>	Total under construction or contracted for.		
184	Total units constructed by the operating section of NHA.		

## Appendix 3

## NHA BALANCE SHEET (To August 31, 1976..)

## Assets:

Cash	\$ 921,469.89
Accounts Receivable	54,282.60
Prepaid Items	(13.77)
Inventory	2,090.70
Work-in-Progress	5,364,841.02
Buildings and Equipment	<u>793,479.34</u>

Total \$6,506,149.78

## Liabilities:

Accounts Payable	\$ 38,650.14
Salary and Wages	994.39
Taxes	<u>(176.36)</u>

Total \$ 39,468.17

## Capital Account:

GOEL	\$6,599,577.59
Accumulated Loss	<u>(132,875.98)</u>

Total \$6,506,149.78

Note: Extracted from unaudited NHA accounts.

Appendix 4

INCOME STATEMENT (1972 to August 31, 1976)

Income:

Down Payments	31,153.00
Rentals	274,159.61
Service Charges	6.67
	<u>305,319.28</u>

Expenses:

Accumulated Expenses (1976) Indirect	133,076.15
Site Maintenance	14,575.00
Auto	12,905.73
Housing Maintenance	9,473.04
Casual Labor	1,116.39
Site Cleaning	4,339.12
Materials	2,677.45
Salary and Wages	81,255.42
Taxes and Licenses	1,894.00
Insurance	4,840.00
Accumulated Expenses (1972-1975)	<u>305,119.11</u>
Total	438,195.26

Operating Deficit (132,875.98)

Note: Extracted from unaudited NHA accounts.

Appendix 5

NATIONAL DEBT

(\$ Million)

	<u>December 1974</u>
<u>DOMESTIC DEBT</u>	4.0
Monetary Authority	4.0
Deposit Money Banks	3.9
Other Financial Institutions	2.7
Non Financial Enterprises	2.5
Non Financial Private Sector	0.1
Internal Debt	<u>---</u>
TOTAL DOMESTIC DEBT	13.2
<u>FOREIGN DEBT</u>	
International Development Institutions	23.1
Foreign Governments	98.9
Bank Loans and Advances	3.8
Suppliers' Credits	11.9
Other	<u>0.8</u>
TOTAL FOREIGN DEBT	138.7
TOTAL DEBT	151.9

Appendix 6

FOREIGN LOAN COMMITMENTS BY DONOR, 1975

<u>Donor</u>	<u>Value</u> (\$ Million)
MULTILATERAL AGENCIES	<u>41.3</u>
World Bank Group	35.3
African Development Bank	6.0
BILATERAL	<u>21.8</u>
U.S. Government	9.8
Italy	12.0
COMMERCIAL (Banks & Suppliers)	<u>9.6</u>
Great Britain	6.6
Norway	3.0
TOTAL	72.7

Source: Ministry of Finance

## Appendix 7

### Initial Environmental Examination

The mission was unable to determine which, if any, government ministry or agency was responsible for environmental questions. It appears that authorities and line agencies, such as the Sewer and Water Authority, Health Ministry, and public health authorities, handle environmental concerns as they arise, but that there is no coordinated policy or program. It also appears from our research that environmental questions are less pressing than other issues in Liberia. However, it was apparent that Monrovia's rapidly expanding population, especially in view of the problems encountered by the government in meeting the physical needs of the city's residents, poses a potentially serious threat to the quality of the environment.

Listed below are some of the areas of the environment which might be affected by housing construction, with projections of the most probable of these effects:

#### Land use:

The provision of housing to low-income families, most of whom live in overcrowded squatter settlements, would tend to decrease the population density. This in general is as beneficial to the environment as it is to human beings. In addition, proper site-planning by professionally trained planners would reduce the disruption of the environment often caused by unplanned or poorly planned construction. An example of this would be the use of sand dredged from the port to build up low-lying areas, simultaneously improving the quality of the environment for the occupants of these areas and providing an environmentally neutral way to dispose of the sand. By working with environmental givens such as hills and gullies instead of trying to overpower them, good site-planning can also help protect the ecosystem, for example by preventing erosion damage.

Water Quality:

The provision of a sanitary sewage disposal system, would help secure a safe water supply for Monrovia.

Atmosphere:

The construction of low-cost housing generates no atmospheric pollution of itself; and smoke or gas emission from heating plants is, of course, not a consideration here.

Natural Resources:

It is unlikely that a construction project on this scale would deplete scarce natural resources.

Cultural:

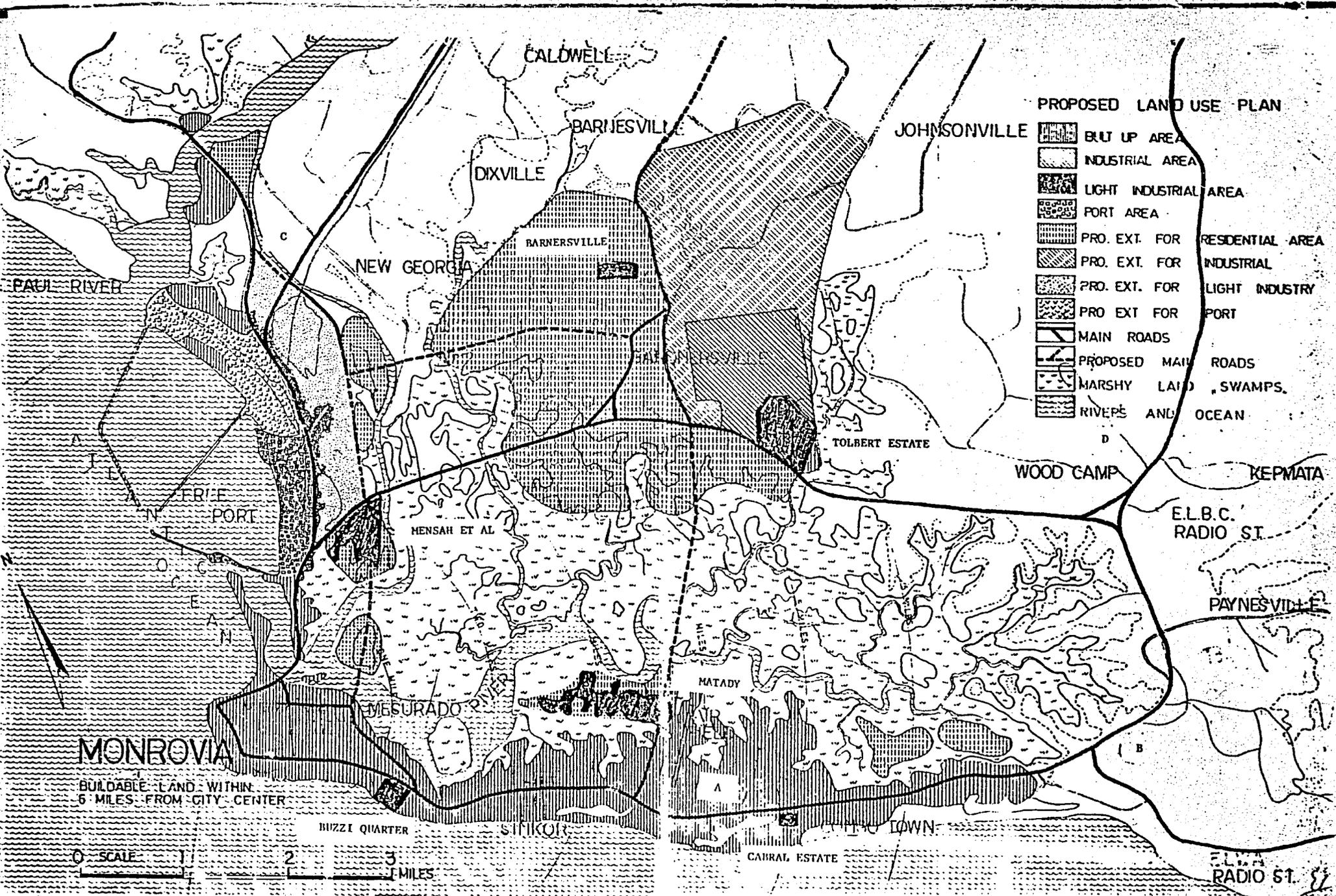
The site-planning and house designs contemplated for any well-conceived project will take into consideration the life-styles and customs of the various tribes which will occupy the new housing units as well as those of groups more attuned to Western cultural patterns.

Socio-economic:

Location of the projected new housing in areas close to employment sources will reduce transportation expenses and time lost in travel. It will also obviate the need for expanded transportation facilities, which would place an additional strain on the environment.

Health:

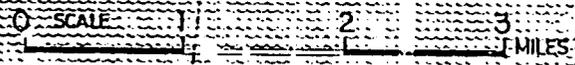
The design of the new housing units would be conducive to improved health of the occupants. Walls, foors and floors should be made of durable materials which afford adequate protection against the elements, in particular the heavy tropical rainfall. The units would have adequate sanitary facilities and a potable water supply system, which would be accessible to all families. The practice of using open spaces, particularly beaches, as human waste areas would be curtailed, and the danger of contamination of the water supply reduced.



PROPOSED LAND USE PLAN

-  BUILT UP AREA
-  INDUSTRIAL AREA
-  LIGHT INDUSTRIAL AREA
-  PORT AREA
-  PRO. EXT. FOR RESIDENTIAL AREA
-  PRO. EXT. FOR INDUSTRIAL
-  PRO. EXT. FOR LIGHT INDUSTRY
-  PRO. EXT. FOR PORT
-  MAIN ROADS
-  PROPOSED MAIN ROADS
-  MARSHY LAND, SWAMPS
-  RIVERS AND OCEAN

MONROVIA  
 BUILDABLE LAND WITHIN  
 5 MILES FROM CITY CENTER



E.L.B.C. RADIO ST.  
 RADIO ST.



Fig. 1 West Point slum area seen from Mamba Point.

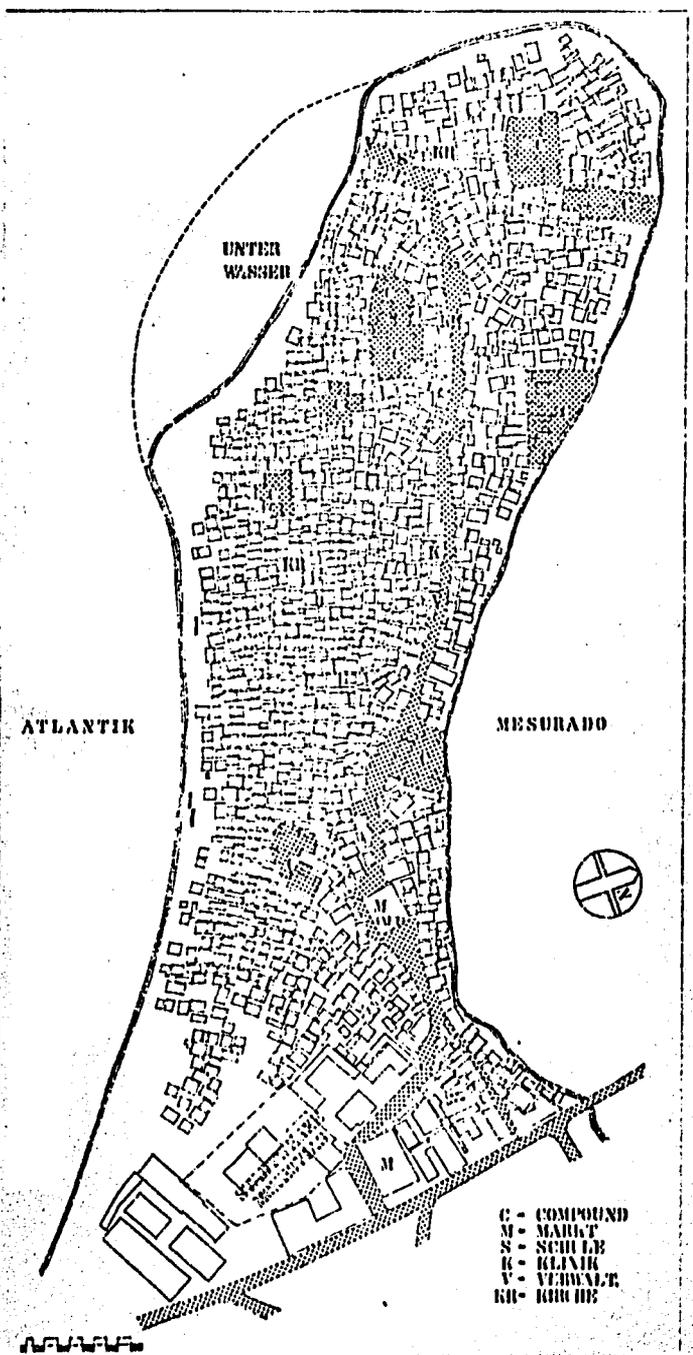


Fig. 2 Plan of West Point. Dotted path is area's only access road and is unpaved. The west end is being eroded.



Fig. 3 West Point. Typical passage between houses is unpaved, too narrow for vehicles, and often wide enough for only one person.

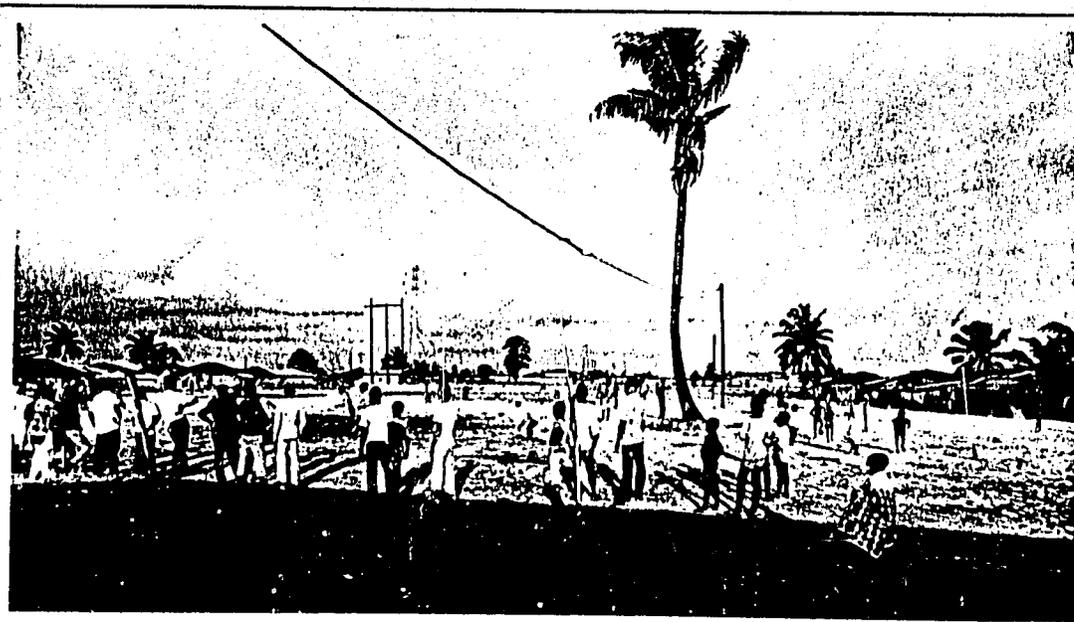


Fig. 4 West Point. Area cleared by the Ministry for Action for Development. Alternative housing was not provided for those displaced.

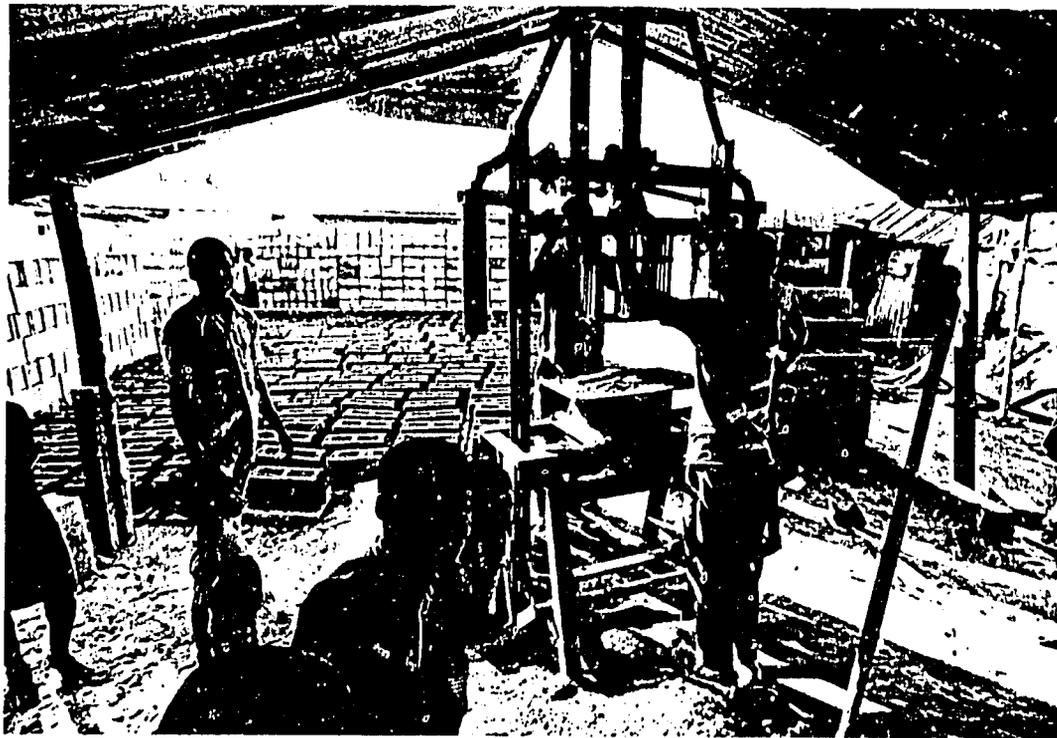


Fig. 5 West Point. Sand - cement block factory showing tamping machine, drying and storage yards.

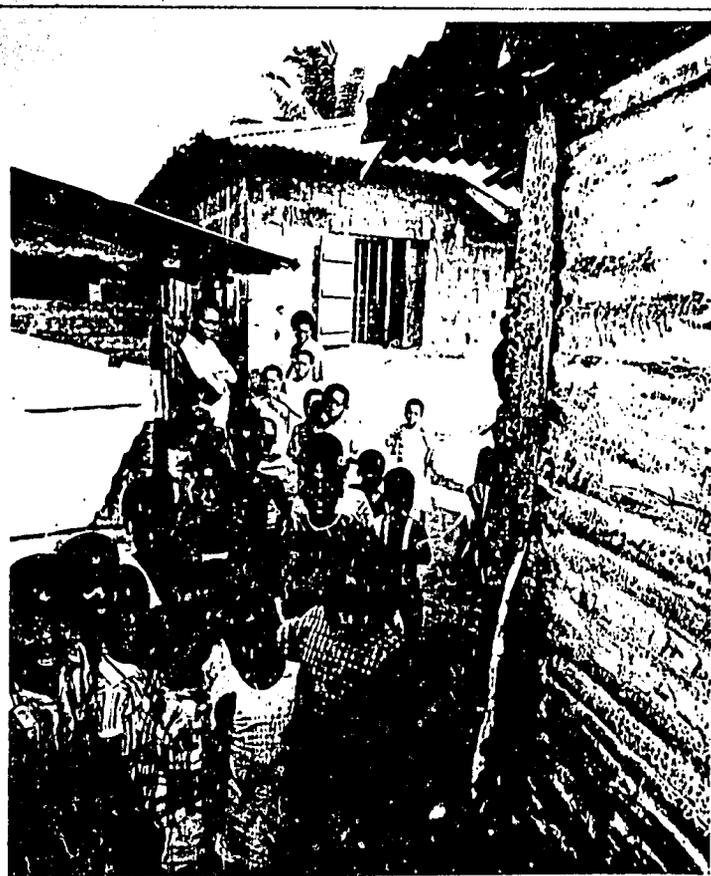


Fig. 6 West Point. Permanent house erected over original corrugated metal structure, which can be seen through the window

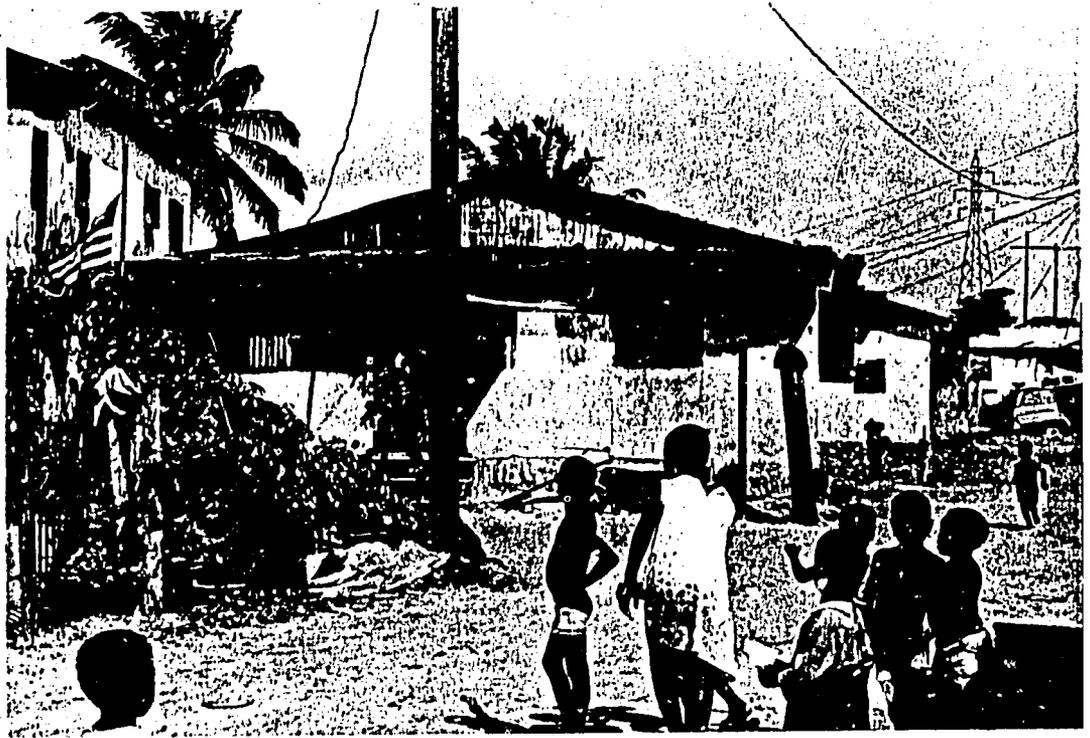


Fig. 7 West Point. The area's only school.



Fig. 8 West Point. Two fishermen with their boat on the typically strewn with trash and human waste. The makeshift shelters at the rear left are for bathing.



Fig. 9 West Point. Fanti fishermen's compound showing houses built around a yard used largely for smoking fish. Where there are no houses compound is fenced off as on the left.

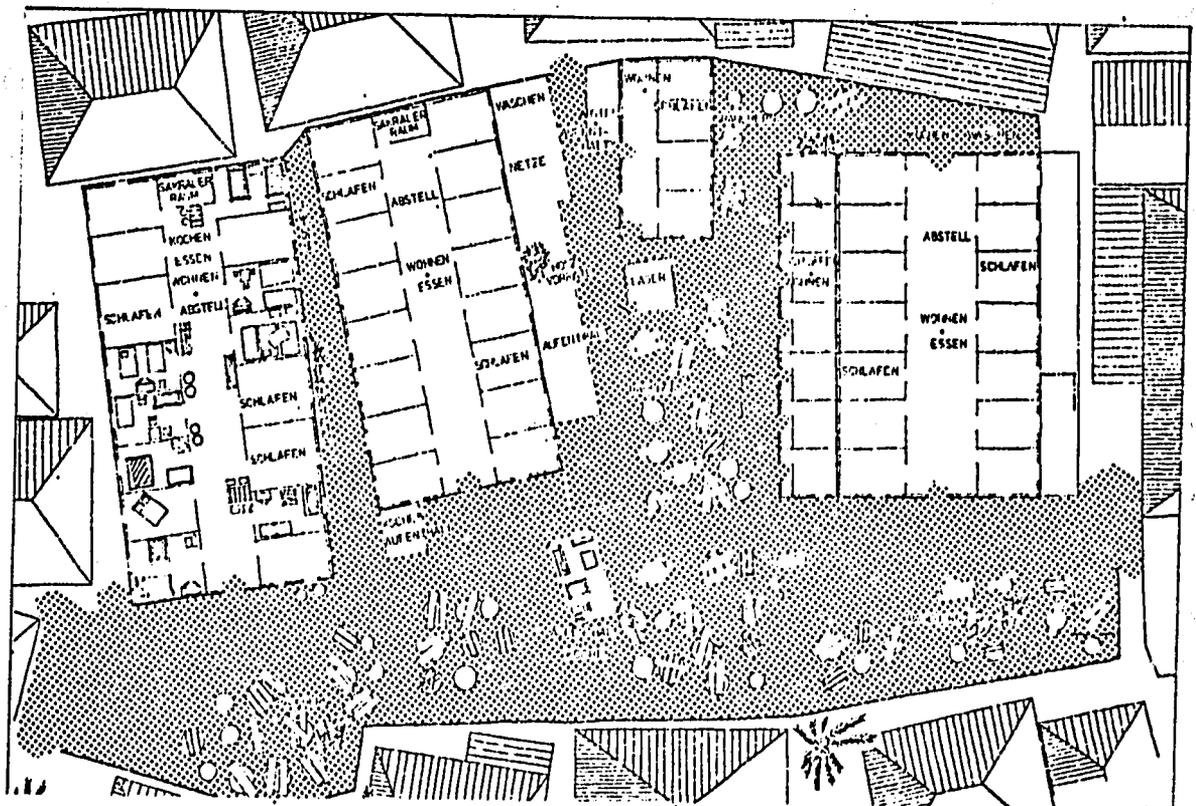


Fig. 10 West Point. Plan of Fanti fishermen's compound showing grouping of long houses in a yard used by the women to prepare fish which their men have caught.

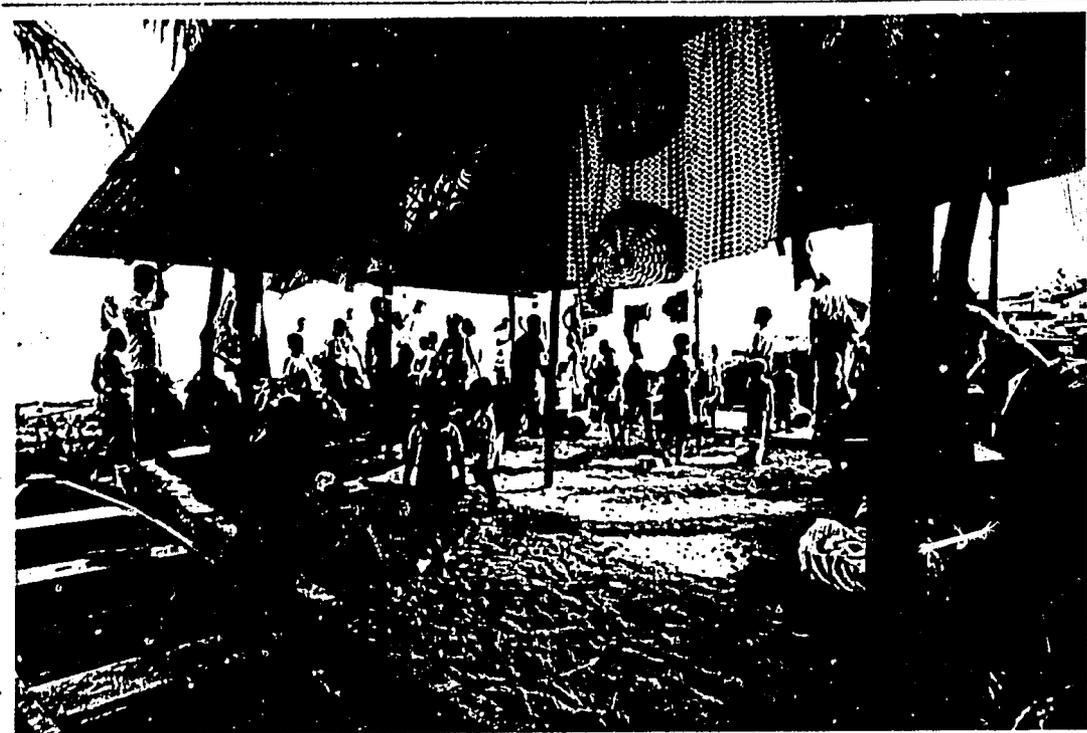


Fig. 11 West Point. Fishermen's waterside work area. Boats pull directly up to docks built by the fishermen at the shore of the processing yard. Several families form a clan to carry out these operations.

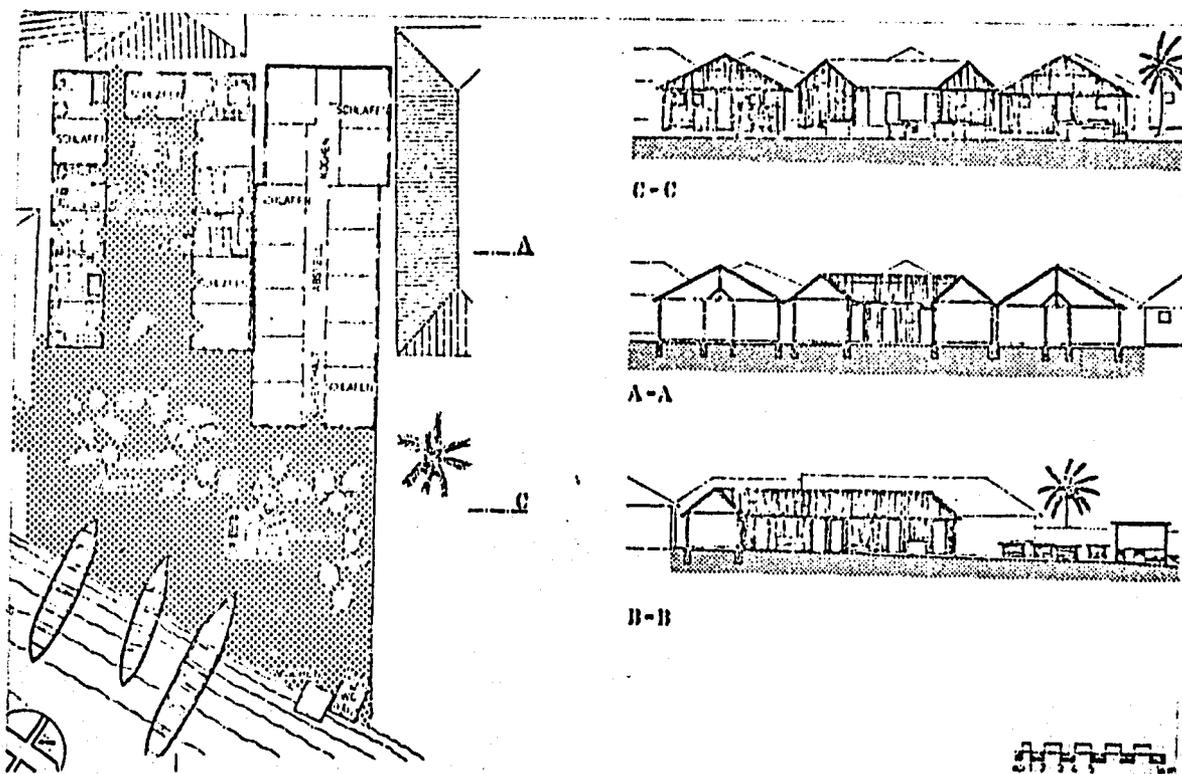


Fig. 12 West Point. Plan and section of the compound of the clan shown in Fig. 11. Living quarters are extremely compact.



Fig. 13 West Point. Yard between two long houses in Fanti compound shown in Fig. 12. Household functions are carried out in this yard, while the large yard in the front is used for fish processing.



Fig. 14 West Point. Main market at the entrance to West Point. Many residents come from that area to set up shop here.



Fig. 15 West Point. Cooperative compound formed around a water tap and palm tree. Several families, not sharing a common trade, claim an open area between their houses for common use. The yard is carefully protected against encroachment by other squatters.



Fig. 16 West Point. The plan of a compound similar to that in Fig. 15. Residents surrounding the yard claim it for family functions, but others use it for circulation because there is no regular system of paths or roads.



Fig. 17 Slip-way slum area looking east along the rock-strewn main street. Hill on the right leads up to central Monrovia.



Fig. 18 Sonewein area market at the foot of the Sonewein slum area. Paving makes this market much cleaner than the one in West Point.



Fig. 19 Sonewein slum area showing typical path access in the hillside section. Despite the difficulty of transporting materials many of the houses are of permanent construction. Vehicular access is impossible.



Fig. 20. Sonewein slum area showing the lower area with very muddy roads and piles of garbage.

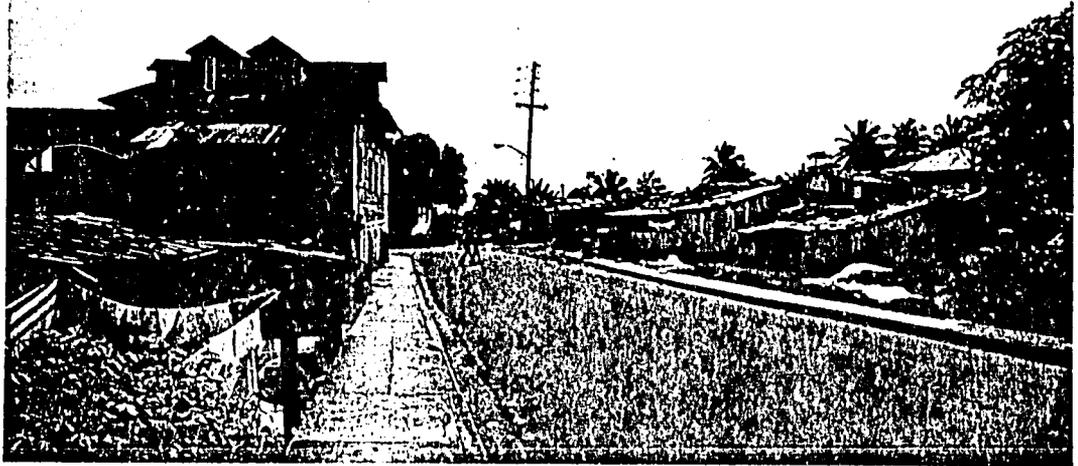


Fig. 21 Typical street scene in central Monrovia showing the wide mix of house types. House on the left is one of a group of permanent, high cost houses. Across the street is a group of squatters shacks.

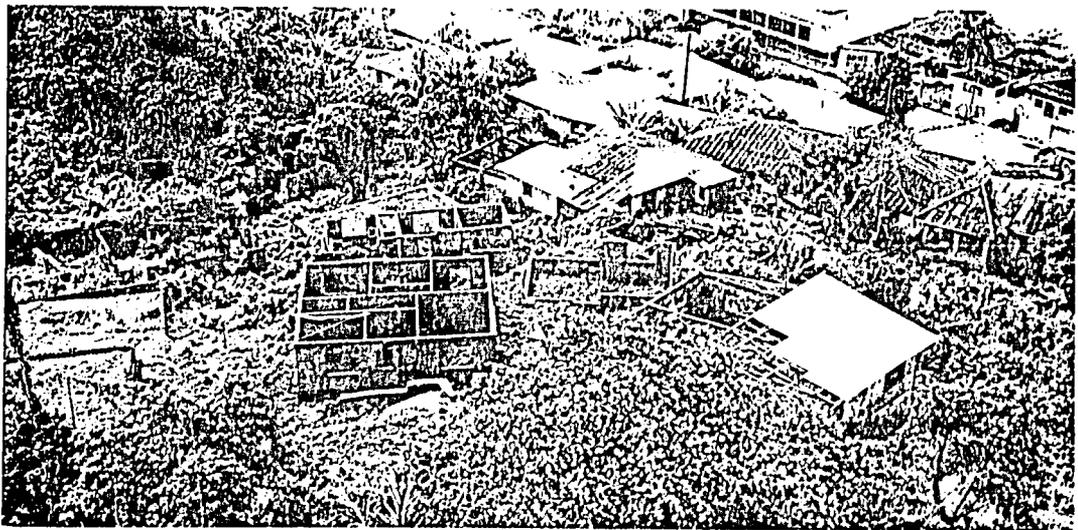


Fig. 22 Houses under construction on Mamba Point by individual owners. The houses are in various stages of completion, which sometimes takes as long as twenty years. This is a common sight throughout Monrovia.

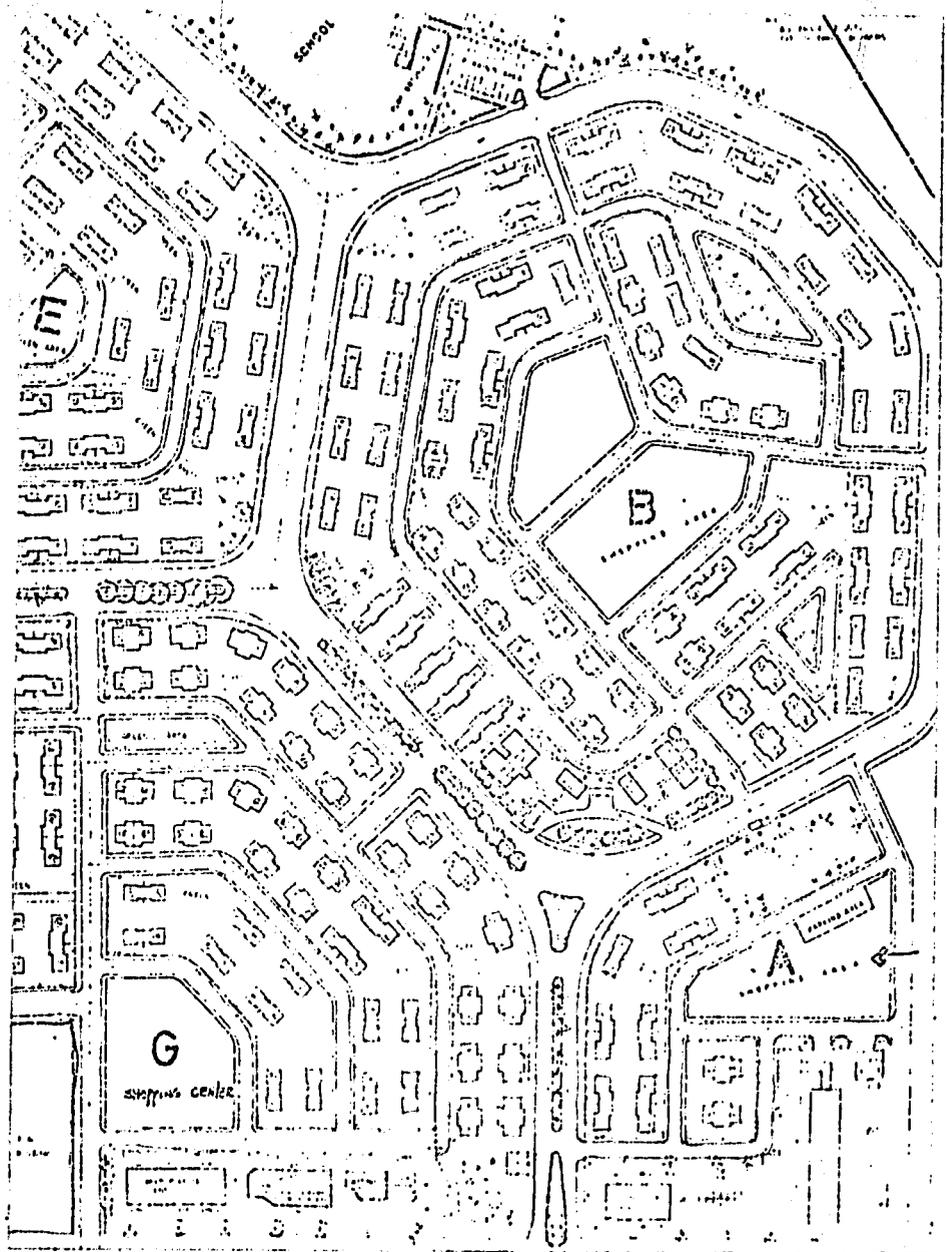


Fig. 23 Plan of National Housing Authority's Tolbert Estates project. Each building contains two houses. Entrance at bottom center.

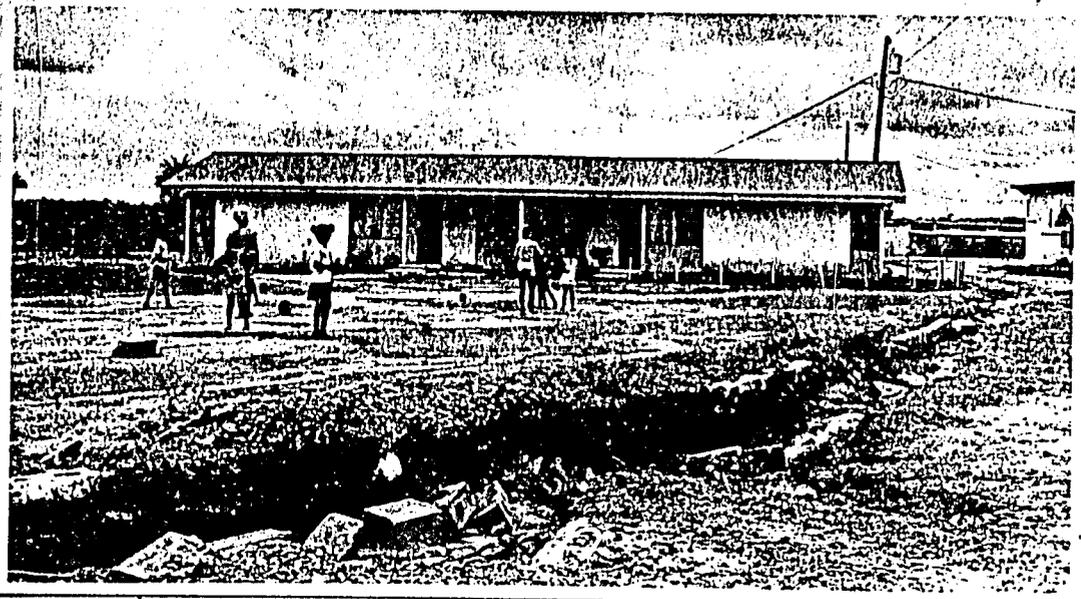
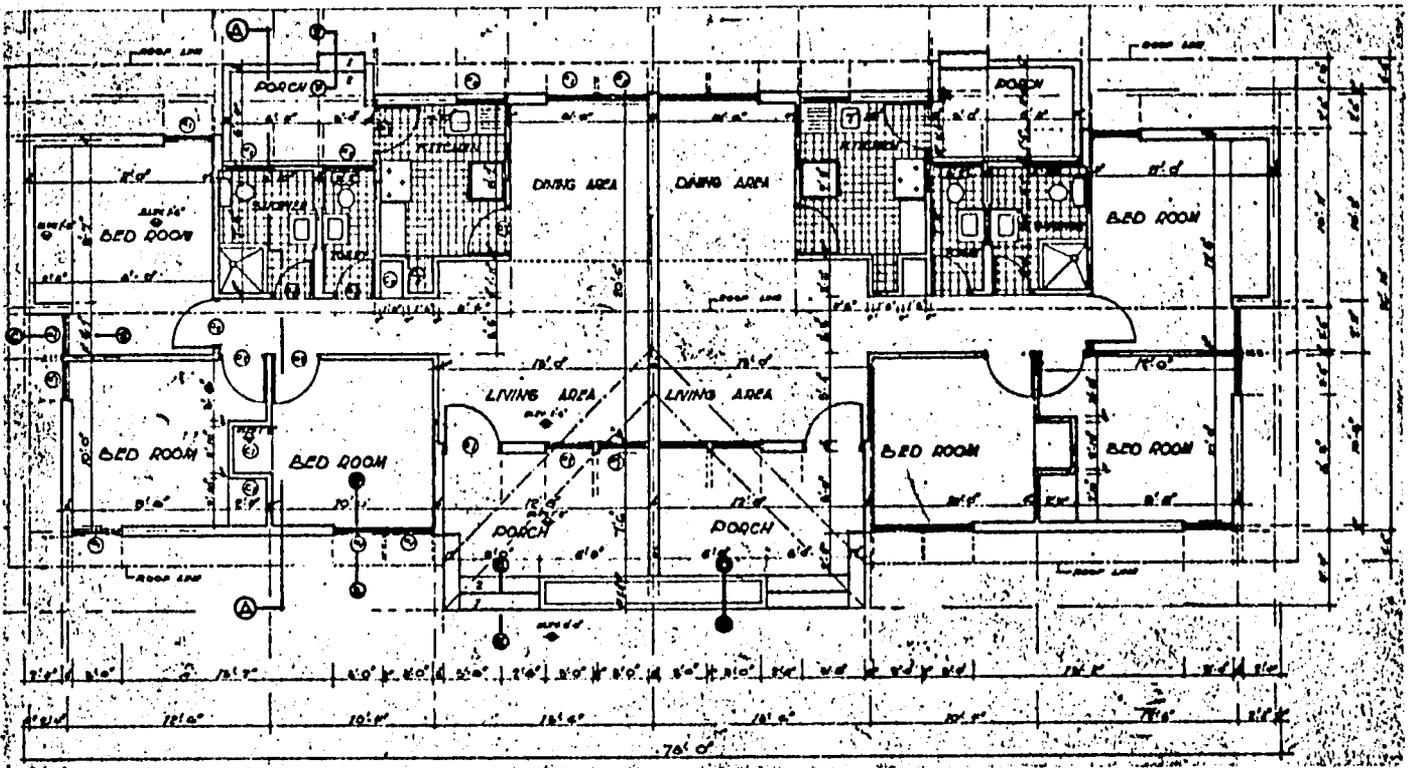
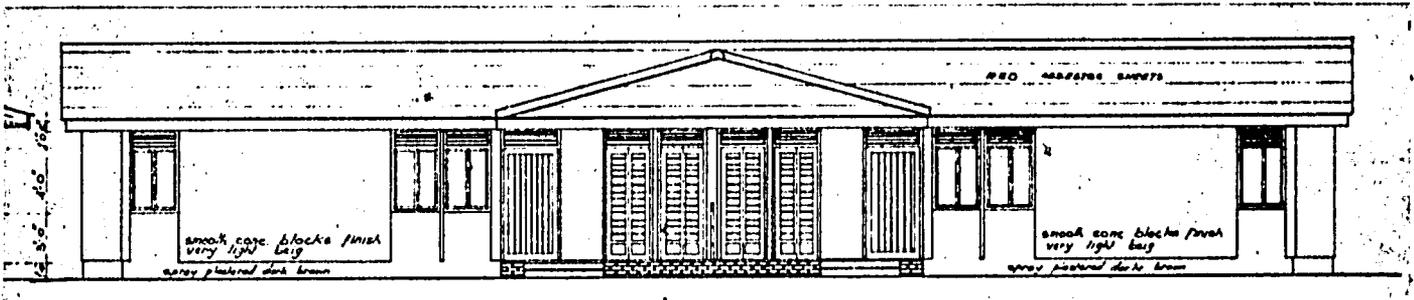


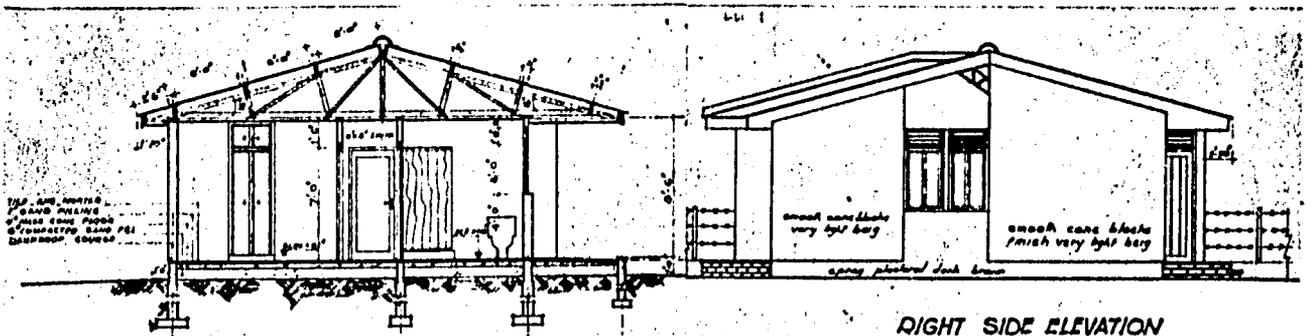
Fig. 24 Tolbert Estates. This unit contains two three bedroom houses. Landscaping, drainage and roads are incomplete.



Floor Plan of double unit (two houses).



Front elevation of double unit.



RIGHT SIDE ELEVATION

Section and end elevation.

Fig. 25 National Housing Authority's design for a three bedroom, party-wall houses of 1050 sq. ft. each.

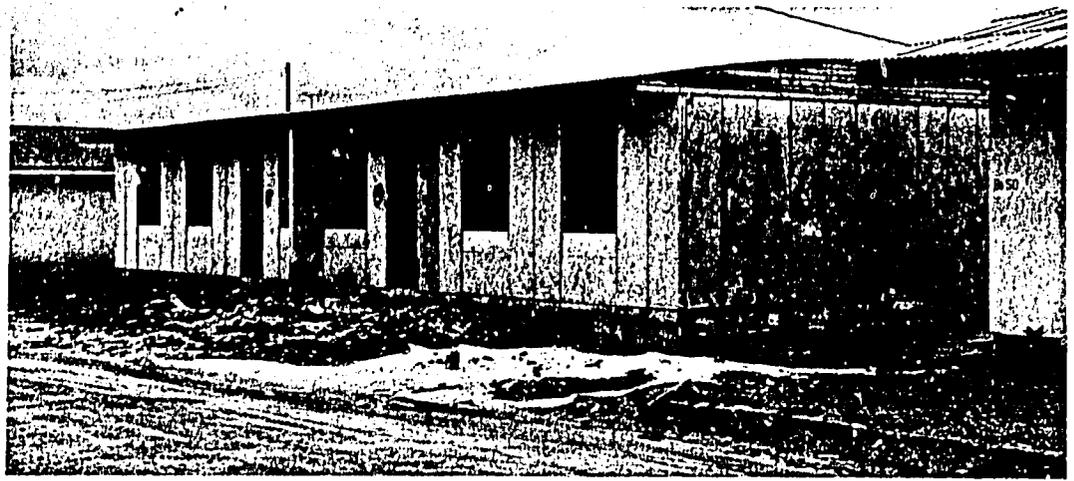


Fig. 26 Tolbert Estates. Norwegian panel houses under construction. Imported light weight wall panels are used instead of concrete block and bowed, corrugated aluminum roofing replaces the asbestos roofing used in NHA houses. Otherwise construction is similar.

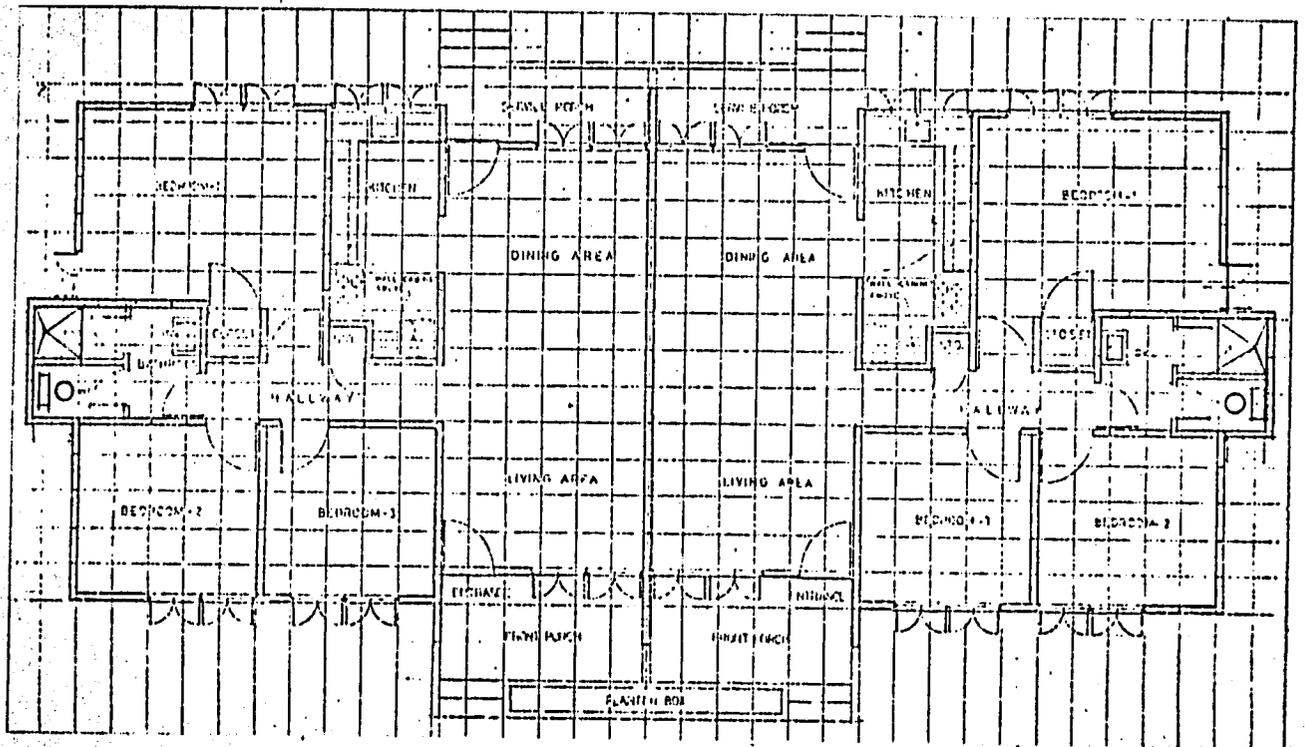


Fig. 27 Tolbert Estates. Plan of Norwegian panel houses, a modification of the NHA design shown shown in Fig. 25. Latest plan for these houses reduces area of the three bedroom unit to 640 square feet.

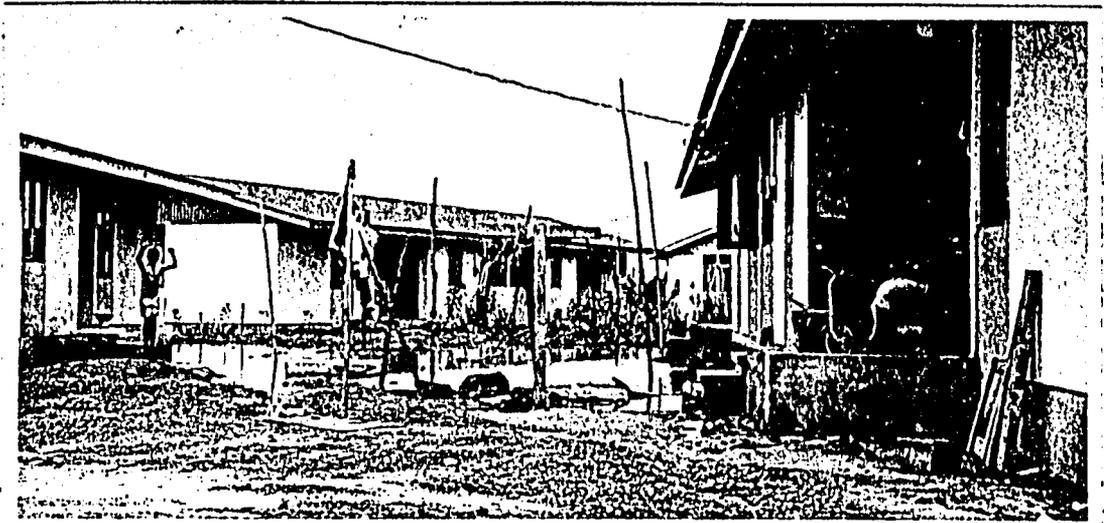


Fig. 28 Tolbert Estates. Rear yards of recently completed houses showing poor drainage.

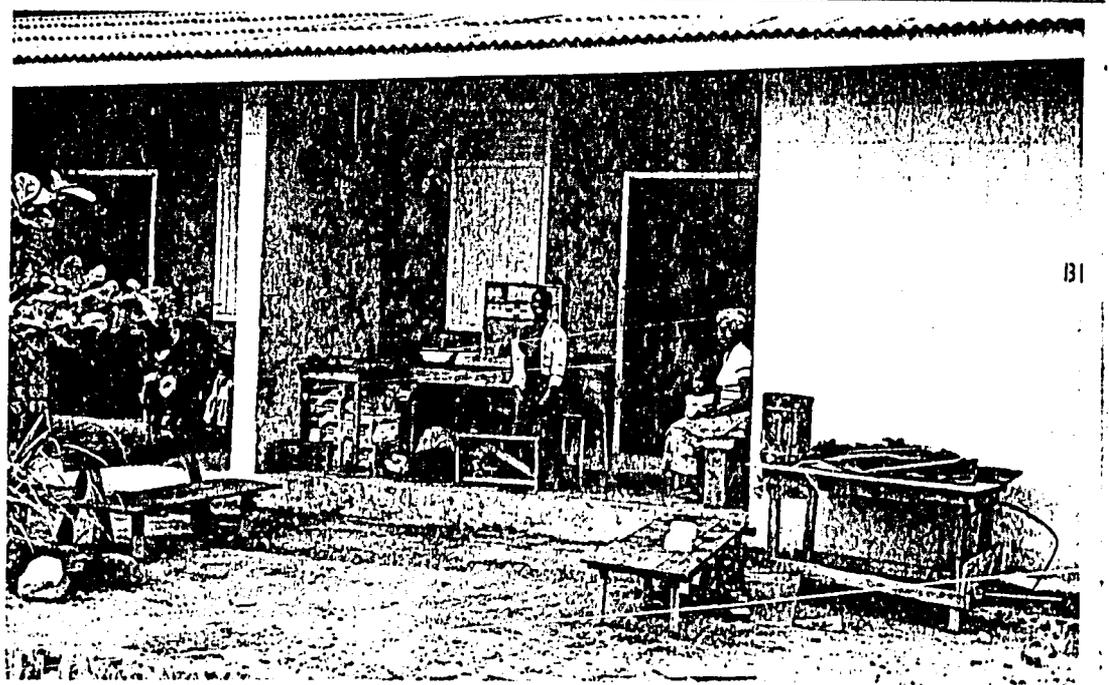
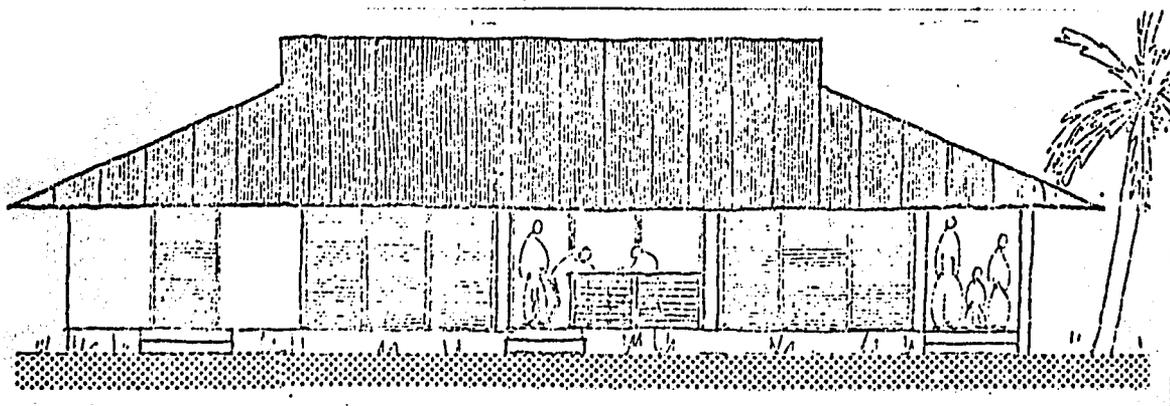
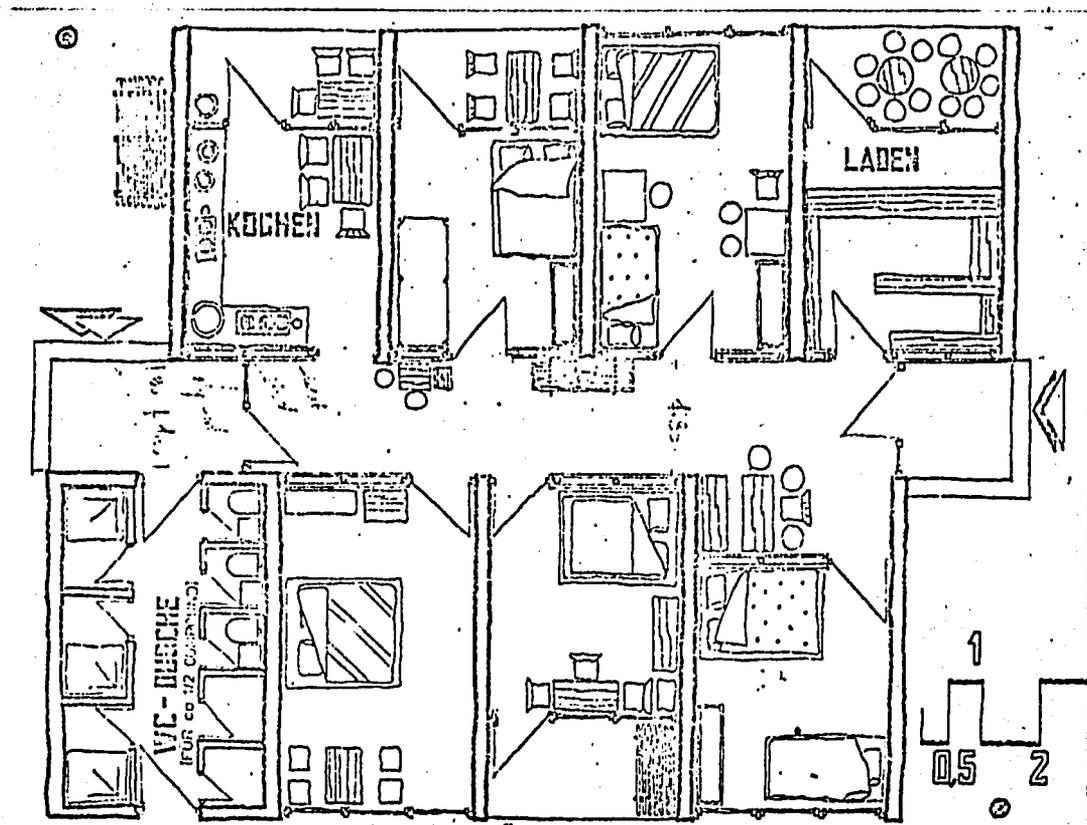


Fig. 29 Tolbert Estates. Small shop set up at the front door of a house in the small area originally designated for the resettlement of low income families from central Monrovia.



Side elevation



Floor Plan

Fig. 30 Lewis experimental compound house for 2.5 low income families. Bathroom serves 2 to 3 units.

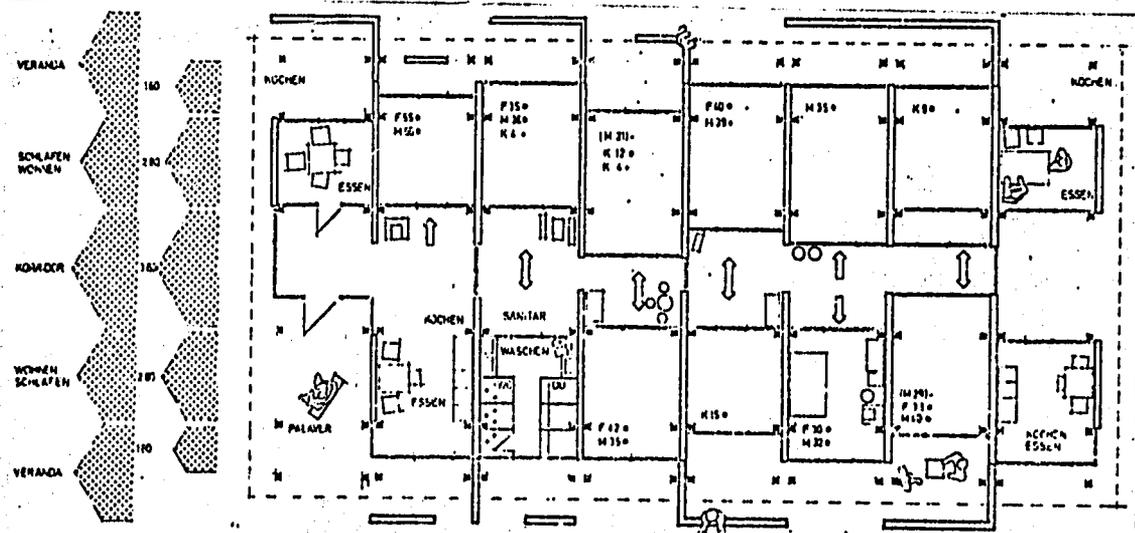


Fig. 31 Lewis experimental compound house for 5 low income families who share the corridor-living space and build their own interior partitions.